THE RAILWAY GAZETTE
A Journal of Management, Engineering and Operation
INCORPORATING
Railway Engineer · TRANSPORT · The Railway News
The Railway Times · Herapath's Railway Journal · RAILWAY RECORD.
RAILWAYS ILLUSTRATED · ESTABLISHED 1835 · RAILWAY OFFICIAL GAZETTE

PUBLISHED EVERY FRIDAY
AT
33, TOTHILL STREET, WESTMINSTER, LONDON, S.W.1
Telegraphic Address: "TRAZETTE PARL., LONDON"
Telephone No.: WHITEHALL 9233 (12 lines)

Branch Offices
GLASGOW: 87, UNION STREET
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Telephone: 27174

Annual subscription payable in advance and postage free
British Isles and Abroad .....£2 5s. 0d.
Single Copies .....One Shilling
Registered at the General Post Office, London, as a Newspaper

VOL. 91 NO. 18 FRIDAY, OCTOBER 28, 1949

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DIESEL RAILWAY TRACTION

The November issue of this RAILWAY GAZETTE *publication, illustrating and describing developments in Diesel Railway Traction, will be ready on November 1, price 2s.*

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THE RAILWAY GAZETTE
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Government and the Crisis

THE Prime Minister's announcement of the Government programme to deal with the crisis which has arisen in our balance of payments came as an anti-climax. After a good deal of speculation had been aroused by talk of the stern measures which would be necessary, Mr. Attlee's statement in the House of Commons showed that the total cuts in expenditure amounted to no more than £250,000,000 a year, spread over a number of Government Departments, reductions in capital investment, and the adjustment of some subsidies. The Prime Minister called for harder work, longer hours, and further restraint in personal spending and income demands, which, coupled with the reductions in expenditure, would, he argued, give the country what might be a last opportunity of restoring its position as a trading nation without a drastic lowering of the whole standard of life. He also claimed that by increasing production, opportunity could be taken of devaluation to improve exports, particularly of a wide range of engineering goods. The measures he put forward will not of themselves result in any major aid to exports. No positive inducement is offered to those who play their part in lowering costs, improving output, or increasing sales.

* * * *

Wage Claims and National Policy

Last week we referred to the decision of the Confederation of Shipbuilding & Engineering Unions to put forward a claim for a wage increase of £1 a week for all its members. Such an increase would cost industry about £100 million a year and if granted would defeat the purpose of devaluation by increasing production costs. Because of the gravity of the situation the Engineering & Allied Employers' National Federation has taken the somewhat unusual step of asking the Confederation to reconsider its claims before negotiations commence. Three very sound reasons for this request were given: first, reference is made to the effect of wage increases on costs; second, there is the reminder that both sides of industry continue to support the terms of the White Paper on personal incomes, costs, and prices; third, that the balance of profits remaining after heavy taxation and necessary depreciation would in no way merit the claim. This latter point was raised because of a proposal by the unions that the claim could be met out of profits and not by an increase in price of goods. The points are to be considered by the Confederation at the next meeting of its executive council.

* * * *

Electrical Industry's Exports

The British electrical manufacturing industry in 1938 was the largest exporter of electrical goods in the world. At present its exports are at the rate of over 2½ times the 1938 quantity, and with shipments at the rate of £120,000,000 a year, it is among the largest exporting industries of the country. The British Electrical & Allied Manufacturers' Association, which has 360 members and represents approximately 80 per cent. of the capital employed in the industry, is making a further bid to increase sales overseas, particularly in the dollar areas. To assist in this objective it has produced a comprehensive and authoritative catalogue which provides buyers in every part of the world with full, accurate, and most attractively presented data of the products of the entire electrical industry. This is the result of three years' intensive work by a special committee of the Association, and of the 13,000 copies printed, 10,000 are being sent to principal buyers, distributors, municipal undertakings, trade commissioners, and so on, in every country of the world. The catalogue covers electrical plant, electrical equipment in industry and transport, and communications, including equipment for workshops, railways, and other transport undertakings, and domestic and commercial electrical appliances, lighting accessories, and installation material

* * * *

Help for Dollar Exports

Mr. Harold Wilson, President of the Board of Trade, speaking at a luncheon given by B.E.A.M.A. on October 19 to mark the publication of the above catalogue, referred to it as an excellent guide to the products this country can put out and which it can sell overseas, and then explained the

facilities now offered by the Export Credits Guarantee Department in collaboration with the Dollar Exports Board to stimulate exports to the United States and Canada. Actually these are an extension of the existing facilities designed to enable traders to operate on a larger scale in cases where enterprise is limited by financial factors. Exporters can now be guaranteed against loss arising from market surveys which do not pay for themselves over a certain period, and the organisation will also guarantee exporters against loss through exceptional advertising and promotional expenses. Losses arising from carrying stocks in America to ensure continuity of supply also will be shared. Mr. Wilson concluded by saying that, given the exporter who was prepared to go into this business with determination and faith, the department was now "geared up" to give him the practical assistance he might need.

* * * *

Transport Statistics

The latest edition of *Transport Statistics*, the four-weekly statement published by the British Transport Commission, has been considerably expanded to include new matter relating to Provincial and Scottish road passenger transport, as well as to docks, harbours, and wharves, so far as they form part of the Commission's undertaking. In this edition, which covers the period to September 11, new tables give useful information on the takings, staff, and operation of road passenger services, and two separate entries on the activities of the Commission's docks, harbours, and wharves give statistics on movements of shipping, and imports and exports. The first table of the booklet, which shows traffic receipts, now covers all the principal activities of the Commission, with the exception of receipts from collection and delivery services operated by British Railways, which it is hoped to include in a future edition. The traffic receipts table now includes a separate entry for docks, harbours, and wharves, under the headings of dues on vessels, wharfage on goods, and other receipts. Amendments have been made also to the order and layout of certain existing tables.

* * * *

Overseas Railway Traffics

Because of the devaluation of sterling, Bolivian currency receipts of the Antofagasta (Chili) & Bolivia Railway are now converted at the new official rate of exchange and, although this change has resulted in an increase in the sterling equivalent of such receipts, it also means a corresponding increase in the sterling equivalent of Bolivian currency expenditure. During the week ended October 9, Antofagasta traffics fell by £2,620 to £54,900, though this was fully compensated in the following week, when receipts rose to £74,820, an increase of £20,810. Aggregate receipts for the 41 weeks to date are now higher by £458,210, at £2,717,860. A total advance of G64,233 was made by Paraguay Central traffics for the current fortnight, when receipts were G132,487 and G143,431. On the aggregate, receipts this year are G2,144,497, as compared with G1,535,724 for the equivalent period of 1948. Following a further increase in South African Railways receipts for the week ended September 24, traffics since April 1 now are higher by £3,889,878, at £37,435,178. Costa Rica receipts for August were better by £501, at £36,405, but are still £5,844 below last year's aggregate, which amounted to £77,536.

* * * *

The Late W. H. Birch and Private Enterprise

Fifty years ago, before the nationalisation of passenger road transport (then mainly local) was foreseen, the bogey was municipalisation. There were statutory powers for local authorities to take over tramways, but these did not cover bus services, and, when the L.C.C. took over the London Tramways Company's system in 1899, the continuance and extension by the municipal authorities of that company's bus services was regarded as a challenge to the London bus industry. The principal operators contended that the L.C.C. action was *ultra vires*, and formed the London Omnibus Owners' Federation to present an united front against municipal competition. The first "aggrieved person" among those who made representations to the Attorney-General was William Henry Birch, whose death at the age of 80 we record with regret this week. After protracted legal proceedings, carried to the House of Lords, success was achieved, and L.C.C. buses were withdrawn on March 6, 1902. This Birch spirit survives in the persons of his sons, two of whom are today taking prominent parts in opposing area nationalisation schemes. John is Managing Director of Birch Bros. Ltd., and Chairman of the Passenger Vehicle Operators' Association. Raymond is Chairman or a Director of a number of B.E.T. Group companies.

* * * *

Mr. John Elliot's Visit to Australia

A most interesting and informative talk, accompanied by a film, was given by Mr. John Elliot, Chief Regional Officer, Southern Region, to the British Railways (Southern Region) Lecture & Debating Society on Monday last. The subject was a visit he and Mr. A. C. J. Payne, Principal of the Railway Staff Training College at Woking, paid to Victoria last January, and which resulted in the report on transport in Victoria by Mr. Elliot which was dealt with at some length in our August 5 issue. The film consisted in large part of shots taken by Mr. Elliot and Mr. Payne while in Australia, and gave a good impression of transport conditions in that country. In his commentary, Mr. Elliot drew particular attention to the difficulties arising from the multiplicity of gauges in Australia, and from the political short-sightedness which has insisted on uneconomic tariffs, and the consequent inability to effect maintenance and renewals on a proper scale for many years. In Victoria, as a result of his representations, not only has there been some improvement in tariffs, which are extremely low, but substantial orders amounting to some millions of pounds have been placed in Britain for new rolling stock.

* * * *

British Railways Staff Magazine

As from January 1, 1950, there will be a new monthly publication known as the *British Railways Magazine* to take the place of those Regional journals which, since the railways were nationalised some two years ago, have been continued on very much the same lines as they were before 1948, except for new titles. Therefore the new journal will in effect be the direct successor of the magazines which were run so successfully for many years by the former main-line railway companies. Under the new arrangement the greater part of this 20-page monthly publication will be for news of a Regional character and there will be an edition for each Region under its own Editor. There will also be a section devoted to news and articles of a general kind. Besides affording a closer link between the staff and management of British Railways it is hoped that the new magazine will continue to record the activities of the Regions at work and play in accordance with past practice and that nothing will be lost in character as a result of the change. The Editor of the new magazine will be Mr. W. C. Brudenell.

* * * *

The Railway Traffic Problem

In the course of his presidential address to the Railway Students' Association on October 19, Mr. John Benstead, Deputy-Chairman of the British Transport Commission, said that at a time when such handicaps as shortage of steel and restrictions on capital expenditure were being experienced, a period had been entered where the excess spending power of the people had declined and there was a considerable proportion of transport revenue highly susceptible to fluctuations of personal incomes and essential needs. There was a school of thought which assumed that within a comparatively short time, by bringing together rail and road interests under the Commission, those financial problems associated with them would come to an end. Mr. Benstead thought faith should not be placed in such an easy solution, for salvation would rather be found through the efforts of each man in his own particular branch. Today, if railways were to survive as the principal transport agency, there must be a preparedness to abandon ideas and customs that were outdated, as well as a realisation that creation of traffic was only achieved if the means of attraction were provided. Traffic would not come automatically, or out of some belief that it ought to come to the railways. Further reference to Mr. Benstead's address is made on another page of this issue.

Electrification of Estrada de Ferro Santos a Jundiai

In September, 1946, a contract was signed in London between the Sao Paulo Railway Company and The English Electric Export Co. Ltd. for the electrification at 3,000 volts d.c. of the railway between Moocha and Jundiahy in the State of Sao Paulo, Brazil. The contract was the outcome of approximately two years' negotiation and actual survey at site between the railway and engineers of The English Electric Co. Ltd. Subsequently, the railway was taken over by the Brazilian Government, and is now known as the de Estrada de Ferro Santos a Jundiai (E.F.S.J.). The route length of main line to be electrified is approximately 64 km. (39.76 miles), of 5 ft. 3 in. gauge double track, including sections with gradients up to 2.5 per cent. It adjoins the electrified Paulista Railway at Jundiahy, thus forming a continuation of the 3,000 volts d.c. electrification as far as Sao Paulo and the adjoining station of Moocha, where the extensive freight yards are also being electrified. The d.c. overhead line, and the double circuit 33 kV. transmission lines have been supplied, and are now being erected in Brazil by British Insulated Callenders Cables Limited, acting as sub-contractors to The English Electric Export & Trading Co. Ltd. The first of the fifteen "English Electric" 3,000-h.p. main-line electric locomotives has been completed at the works of the Vulcan Foundry Limited: further information is given elsewhere in this issue.

* * * *

Overseas Railway Progress and Problems

MR. W. CYRIL WILLIAMS, the new President of the Institution of Locomotive Engineers, is one of the best-known figures in the British locomotive manufacturing industry. Not the least of his achievements is his first-hand knowledge of railways in many parts of the world. Within the last two years he has undertaken tours which have covered the principal railway-using countries; during one of them he journeyed 45,000 miles, and during the other he made an extensive study of the African transport systems. It was but natural and fitting, therefore, that when he came to choose the subject for his Presidential Address to the Institution of Locomotive Engineers, which he delivered last week, he should decide to deal with the railway situation in general and the locomotive position in particular of the many countries which he had recently traversed. He called his address "The Changing Scene—Some Reflections on Overseas Railway Progress and Problems." It was well named, for there cannot have been another period of four years such as those since the end of the war in which such extraordinary changes have occurred on many of the railways of the world. Mr. Williams outlined these to a record attendance for a Presidential Address to the Institution. Added interest was given to his words by some excellent slides, including up-to-date maps of territories discussed, on which a good deal of thoughtful preparation obviously had been expended.

It is possible to deal only with the more important facets of a paper which occupied well over an hour in its delivery, and which was notable, nevertheless, for conciseness of its presentation of many important items in each of the territories. The changing scene, of course, could have its origin in Great Britain, where the railways are now nationalised, or in the United States, with its extensive adoption of diesel power. India has been partitioned into India and Pakistan, and the North Western, the Bengal & Assam, and the Jodhpur Railways have been bisected, and the Eastern Punjab, the Eastern Bengal and the Sind Railways created out of the severed sections. Assam has been cut off from railway communication with the rest of India. Ceylon has become a self-governing Dominion. The Burma Railway, after suffering probably the greatest destruction which has ever befallen any one railway, is now being rehabilitated. The Malayan Railway, previously known as the Federated Malay States Railway, has made great progress towards reconstruction after the war. In New Zealand, outside the area of the recent conflict, much work is being done in the field of electrification. The Australian Railways, after years of very slow progress in some cases, are now in process of large schemes of modernisation. In that country the gauge problem is again being seriously considered, and Mr. Williams gave a good deal of information on this point and on the inter-State capital links which would probably be the first undertaken.

In the Continent of Africa great progress is being made in railway development. In the Union itself expansion of traffic of every kind has been progressive for some years, but recent months have eclipsed all others. Traffic handled has increased 50 per cent. since 1938, and engine-mileage for the first time has exceeded 100 millions. In Rhodesia there has been an unparalleled demand on the railways and record-breaking activity. The railways of Rhodesia have a three-year plan costing £20,000,000 for general improvements, and an increase of nearly 50 per cent. in locomotive power is taking place. In tropical Africa traffics in many territories are also rising, and a number of inter-system links are being forged. For example, in the ten-year plan for the Belgian Congo, the railway connection receiving first consideration is that joining Kamina to Kabalo, a distance of some 300 miles, which will provide communication with the present Grand Lacs metre railway system, which will have to be converted to 3 ft. 6 in. Surveys are being undertaken with a view to effecting a link between the Rhodesian and East African Railways, a line from Broken Hill to some point on the East African system being envisaged, which would necessitate a railway some 1,000 miles long. Gauge conversion of the East African to 3 ft. 6 in. may ultimately follow.

Mr. Williams also mentioned the new relationship which is being effected between British locomotive builders and the Indian railways. For generations there has been the closest association, but in India there is a natural disposition to undertake the construction of rolling stock in that country. British locomotive manufacturers, through their association, the Locomotive Manufacturers' Association of Great Britain, are to help in establishing and running the locomotive works which have been planned at Chittaranjan and give necessary technical experience. For an initial period up to five years the Locomotive Manufacturers' Association will be responsible for production, management, and technical aid. It will effect this by sending experts to India and by providing for further training of Indian technicians in British works.

The President made quite clear his conviction that the steam locomotive would be the principal form of motive power on numerous railways for a very long time. It seems evident that the British-built locomotive, notwithstanding the tendency of some countries to manufacture a portion of their own motive power, will continue to play its part, for he gave many instances of large orders for overseas, many of new design, which are now going through British works. In all, some £35,000,000 worth of steam locomotives alone are being built in this country for overseas railways. These include no fewer than 285 for Australia. At the same time it is essential, if the steam locomotive is to give of its best, that it should receive more attention and maintenance comparable to that which is accorded more recently developed forms of motive power.

On many occasions during his paper Mr. Williams referred to the high average age of locomotive stock in some of the countries with which he dealt. This is particularly noticeable in Australia, where the average age of the British-built engines is now about 45 years; even in New South Wales, for instance, out of a total of 1,127 locomotives, 532 were built in the United Kingdom 50 to 70 years ago, and in Western Australia, 288 out of 422 locomotives are over 30, and many over 40 years old. There are, indeed, thousands of obsolete engines in being. When engines are obsolete they cannot have the proper characteristics for modern transport requirements, and as a result statistics are distorted and the reputation of the steam locomotive is lowered. Moreover, hundreds of running sheds are exactly as they were 30, 40, or even 50 years ago. Many are roofless, have no drop pit, inadequate machinery, and servicing arrangements are outmoded and have no relation to sequence. It is no wonder, therefore, that newer forms of motive power have so great an advantage, when they are provided with servicing regardless of expense. To obtain comparable availability from the steam locomotive it is essential that money should be spent and that the running shed, which is the heart of the railway, should be a primary consideration.

There was clear evidence in the President's paper of a new vision being exhibited by railways in planning ahead and of a more sensible attitude to purchase and standardisation. If the maximum advantages of economy in production and the pooling of world-wide experience which the British manufacturers possess is to be obtained, much more can, and should

be, done in the standardisation of general types of locomotives. The war proved that a great deal could be achieved in the way of overcoming particular personal preferences for specific detailed designs for each and every railway. Many of the smaller railways with advantage could adopt the equipment of larger systems. The multiplicity of designs may be gauged from the fact that in the paper presented 500 different classes of locomotives were accounted for; there are, for example, 192 classes in India, 120 classes in Australia, and over 100 in South Africa. Mr. Williams concluded his address with a sentence which contained much wisdom and which should be well pondered by railways in all parts of the world. He said: "A Chief Mechanical Engineer can be the most expensive official of a railway. He also, I think, can save more than any other."

* * * *

British Transport Commission Traffic Receipts

THE decline in receipts of the British Transport Commission was continued during the four weeks to October 9. The reduction in total gross traffics for that period compared with the similar period of a year ago was £1,105,000, which was the largest decline recorded this year. For the first time the Commission included in its published details the takings by Provincial and Scottish road passenger transport. These services showed a rise of £109,000 as compared with a similar period of 1948.

Traffics on British Railways were less by £1,216,000 on the four weeks; all sections, with the exception of minerals which showed takings higher by £49,000, registered substantial reductions. Passenger traffics fell by £760,000, and movement of merchandise and livestock brought in £412,000 less. Coal and coke receipts shrank by £60,000.

London Transport receipts were down by £17,000; the only section of this Executive to show an improvement was the railways. Inland Waterways yielded £19,000 more than for the similar period last year.

In the following table, traffic receipts are shown for the four weeks to October 9, compared with a similar period of 1948, and also the aggregate for the first 40 weeks of this and last year.

	Four weeks to October 9		Incr. or decr.	Aggregate to October 9		Incr. or decr.
	1949	1948		1949	1948	
	£000	£000	£000	£000	£000	£000
British Railways—						
Passengers	8,962	9,722	— 760	92,150	99,146	— 6,996
Parcels, etc., by passenger train	2,293	2,326	— 33	22,213	22,493	— 280
Merchandise & livestock	6,259	6,671	— 412	62,695	64,442	— 1,747
Minerals	2,336	2,287	+ 49	22,470	21,703	+ 767
Coal & coke	5,258	5,318	— 60	51,758	49,503	+ 2,255
	25,108	26,324	— 1,216	251,286	257,287	— 6,001
Road Passenger Transport, Provincial and Scottish						
Buses, coaches & trolleybuses	2,982	2,873	+ 109	28,052	27,335	+ 717
London Transport—						
Railways	1,101	1,095	+ 6	11,030	11,167	— 137
Buses & coaches ...	2,511	2,519	— 8	24,342	24,403	— 61
Trolleybuses & trams ...	866	881	— 15	8,441	8,653	— 212
	4,478	4,495	— 17	43,813	44,223	— 410
Inland Waterways—						
Tolls	53	56	— 3	519	530	— 11
Freight charges, etc. ...	68	46	+ 22	658	491	+ 167
	121	102	+ 19	1,177	1,021	+ 156
Total	32,689	33,794	— 1,105	324,328	329,866	— 5,538

The total loss of revenue for the current year is now £5,538,000. British Railways gross receipts are down by £6,001,000. Passenger traffic has fallen by £6,996,000, merchandise receipts by £1,747,000. On the other hand, coal and coke revenue is up by £2,255,000, and mineral movement has accounted for £767,000 more than in the comparable period of 1948.

With four-fifths of the year already gone it is increasingly clear that the net revenue of the British Transport Commission for the whole of 1949 will show a considerably greater deficit than the £4·7 millions registered in respect of 1948. Present indications are that traffic receipts will be down by about £6,500,000 to £7,000,000. Labour costs have increased and at a very conservative estimate will account for at least £1,500,000 more than they did last year. Other costs have risen, and in all it seems not unlikely that at the very minimum, notwithstanding such economies as can be achieved, the deficit for the current year will be of the order of £10,000,000.

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Rhodesia Railways

AN advance copy has been sent to us by Sir Arthur Griffin, the General Manager, of the report of the Rhodesia Railways covering the eighteen months from October 1, 1947, to March 31 last, as the financial year of the railway was changed to coincide with that of the Southern Rhodesia Government, in view of its acquisition of the undertaking as from April 1, 1947. The work of reorganisation has proceeded rapidly and the provision of equipment, staff and housing has progressed well. The rate of building houses for the staff is rising. As the result of a recruiting campaign in the United Kingdom, 396 staff of all categories were sent out, but the General Manager regrets the slowness of Rhodesians to join the railway service.

A considerable total of locomotives, and coaching and goods rolling stock was on order, of which 761 wagons and 29 locomotives were delivered up to March 31 last. An overhaul of the system of store-keeping and accounting was considered necessary and an examination was made by an expert, whose report is being implemented.

The Portuguese Government expropriated the Beira Works Company with effect from January 1, 1949, and the Beira Railway itself was taken over as from April 6, though the working of the railway continued to be undertaken by the Rhodesia Railways as an interim measure. Over the period, the preparation of the Southern Rhodesia Railway Bill (since passed) entailed much work; it legislates for the administration of the Rhodesia Railways after the liquidation of the Rhodesia Railways Limited.

Total receipts for the six months ended March 31, 1948, were £4,003,332 and for the year ended March 31, 1949, were £8,954,694, compared with £6,962,855 for the year ended September 30, 1947. Expenses were £3,194,409 for the six months ended March 31, 1948, and £7,053,480 for the year ended March 31, 1949, compared with £5,604,069 for the year ended September 30, 1947. The increased expenditure was chiefly due to the rise in salaries and wages. The revenues from passenger and goods traffic were records; the high level of earnings from European passenger traffic is chiefly attributed to the increased population as a result of immigration.

Some of the principal results appear below:—

	Year ended September 30, 1947	Six months ended March 31, 1948	Year ended March 31, 1949
Mileage open	2,445	2,445	2,436
Gross ton-miles (thousands) ...	3,792,724	2,047,255	4,377,433
Net ton-miles	1,681,910	931,672	2,000,254
Average haul (miles)	421	429	423
Train engine-miles	5,892,791	3,134,485	6,818,559
Engine-miles	7,050,524	3,741,879	8,096,756
Tonnage carried—			
General goods	1,609,324	904,038	1,953,888
Coal and coke	1,483,883	780,173	1,706,105
Minerals	905,137	489,509	1,065,073
Total tonnage carried ...	3,998,344	2,173,720	4,725,066
Livestock carried	336,733	121,473	224,471
Passengers carried—			
First and second class	269,627	128,822	288,412
Third class	10,332	4,328	12,794
Fourth class	1,888,809	913,983	2,005,971
Total passengers carried ...	2,168,768	1,047,133	2,307,177
Receipts—	£	£	£
General goods	3,271,532	2,071,443	4,702,399
Coal and coke	797,605	427,640	941,444
Minerals	1,299,553	698,890	1,571,132
Livestock	121,315	47,918	83,052
Coaching	1,114,015	569,860	1,267,783

The recruitment of gangers still causes anxiety, and efforts to attract men from overseas are being intensified. Many engineering projects are envisaged, but the only three major works in hand by the end of the year were the yards at Lochinvar, near

Salisbury, the deviation of the Cape main line at Bulawayo, and a deviation at Umtali.

There was a slight reduction in the average mileage run by locomotives between general overhauls, from 163,574 (1946-47); 160,217 (1947-48—six months); and 158,767 (1948-49); the mean scheduled shopping mileage is about 140,000.

The availability of material showed further improvement, and the standard of maintenance of wagons receiving general repairs was entirely satisfactory. It is proposed to increase control by introducing an arrangement whereby a Mechanical Superintendent deals with all mechanical running matters with a Running Superintendent in charge of operation under the Chief Superintendent of Transportation.

Petrol conveyed in bulk from Beira to Rhodesia was 21,819,688 gal. for the year ended March 31, 1949, an increase of 30·31 per cent. over the year ended September 30, 1947, and only by intensive working of the tank cars was it possible to keep pace with consumption. Earnings from road motor services increased from the previous record figure of £129,834 in 1947 to £180,256 for the year to March, 1949, with a revenue of £80,329 (equivalent to £160,658 a year) for the intervening half-year. Part of the additional revenue for 1949 resulted from a 10 per cent. increase in rates for goods by road.

The General Manager mentions the excellent relations existing between the administration and the two unions and pays tribute to the staff for their co-operation towards the successful working. He looks forward to reaching at an early date the stage when the services rendered by the railway will be adequate. It depends on the willing service of all employees, and he is confident that reliance on that will not be misplaced.

* * * *

The Canadian Pacific on Transport Problems

THE outline submission of the Canadian Pacific Railway Company to the Royal Commission on Transportation,* now sitting in Canada to examine national transport questions, makes the initial point that no transport service can be adequate unless it is so arranged and its rate structure so framed that the traffic of the country is moved freely and the agricultural and industrial development of the country maintained and encouraged.

The railways must be made financially sound and be able to provide adequate and modern railway services. A reasonable ratio between net and gross earnings must be provided if the company is to continue to give low-cost efficient transport. In 1885 the percentage of net to gross earnings was 38·5, in 1918 it was down to 21·9, and in 1934, 19·4. Since then it has continued to fall until, last year, when it was only 5·2, and gross earnings of $355,249,702 were set against working expenses of $336,830,536.

Although materials and wages have continued to rise, the cost to the consigner of hauling one ton of freight one mile was 1·13 cents in 1948, compared with 1·2 cents in 1885, or, in terms of real purchasing power, less than half. This has been made possible by continual, if gradual, improvements to plant and equipment. A significant point which the company makes, in refuting the impression that Canadian transport charges are high, is that the present freight rate system of Canada provides, for the great bulk of the movement of goods, rates which are lower, not higher, than those charged in the United States for similar movements over similar distances.

The Canadian Pacific recognises that road and rail "have a special aptitude for service in their respective fields." The problem is to co-ordinate them in the public interest. It submits "that a recommendation should be made that as a first step and in any event Parliament should enact legislation to vest in an administrative tribunal power to control and regulate highway transportation within the jurisdiction of the Dominion."

It pays tribute to the Canadian National Railways, stating that its present management "has achieved a high degree of efficiency," but points out that, as a privately-owned enterprise, it competes with the Canadian National as a Government-owned enterprise. Up to now, the Canadian Pacific has been the yardstick accepted by the Board of Transport Commissioners in fixing Canadian rates.

Reduction in the amount of fixed charges of the Canadian National (a review of the capital structure and rates of which is called for in a clause of an Order-in-Council) would be a serious threat to the ability of Canadian Pacific to continue to function as a privately-owned railway system, unless it were accompanied by a statutory assurance that permissible earning power of the Canadian National as a railway would not thereby be reduced.

The Canadian Pacific says that railway legislation generally should tend towards less rather than more regulation of railways, because of the increasing strength of competing transport media. It considers that it is in the best interest of Canada that it continues to function as a privately-owned system. Regulation of public utilities is admitted to be necessary, but if it is carried too far and allowed to become "hedged about with political controversy and subject to political solutions, private enterprise cannot perform its function and must inevitably give way to a socialisation of the enterprise."

* Outline Submission of Canadian Pacific Railway Company to the Royal Commission on Transportation

* * * *

Aluminium Alloys in Structural Engineering

APART from the introduction of its high-tensile varieties, steel has now held the field for nearly a century, without any great change or rival, as the standard material for bridge girder-work and other kindred constructional uses. Recently, however, a new material has entered the lists, namely, aluminium and its alloys. The development of this metal has been proceeding steadily for the past half-century, but during the war its progress for commercial purposes was retarded; in the realm of aircraft construction, however, it leapt forward. In fact, the subsequent commercial development of aluminium and its adaptation for structural engineering work has been made possible mainly by the increased capacity of the industry in the war years, both in production tonnage and the variety of forms in which it has become available. The general increase in its use has had the effect of stabilising prices and placing it second among industrial metals in terms of volume consumed.

Mainly because of its increased use aluminium is the only major industrial metal that has fallen in price since pre-war days: in October last the cost of virgin-ingot aluminium was 21 per cent. lower than in March, 1940. In spite of greatly enhanced costs of fuel and labour, fabricated aluminium and aluminium-alloy sheet and sections have fallen in price by some 5 to 10 per cent. since 1938, whereas on the same basis the cost of semi-fabricated steel has risen by about 50 per cent. Also, provided that design takes into consideration the properties of the metal, the initial cost of an aluminium-alloy structure is not much greater at the present time than that of an equivalent design in steel. This difference is still further reduced by lower cost of subsequent maintenance.

There are many advantages of aluminium by reason of its remarkable lightness. In long span bridges, for instance, where the weight of the structure is responsible for an appreciable proportion of the total stress, light alloys are of particular value. Moreover, substantial savings can be effected in the supports and foundations, and larger units can be pre-fabricated under cover; these remarks apply equally to roofs, cranes, and other large-span structures. Another important consideration is that the transport of light metal is much lower in cost and easier than that of steel.

Secondary only to considerations of weight is the importance of the high resistance to corrosion of light alloys, and it is this that ensures comparatively low maintenance charges. In fact, when comparing aluminimum with steel, there would seem to be at present only one disadvantage of aluminium in fabrication—its unsuitability for welding. Probably this handicap will be overcome before long, however. Finally, it is significant that, strength for strength, aluminium-alloy girder spans like those at Sunderland, weigh only about 40 per cent. of the corresponding design in steel. As a result of these many considerations some of the most experienced engineers in bridge design and practice have been converted to favouring this new material for their work. The Sunderland bridge is described elsewhere in this issue.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

The Late Mr. George Ellson

British Railways, Southern Region,
Waterloo Station, London, S.E.1. October 20

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—The sudden death of Mr. George Ellson occurred when I was on the point of going to the U.S.A. and Canada on a short holiday, otherwise I would have asked you to publish an appreciation in *The Railway Gazette*. I notice, however, that Mr. A. Dean very appropriately wrote an appreciation which was published in your issue of October 7. As Mr. Ellson's successor to the position of Chief Engineer of the Southern Railway I would like this letter to be found a space in *The Railway Gazette* if this is possible.

I first knew Mr. Ellson in 1912 when I joined the Engineering Department of the S.E. & C. Railway and from that time and until his death we had been friends as well as railway engineers. When I succeeded Mr. Ellson in February, 1944, as Chief Engineer of the Southern Railway, I took over from him the civil engineering responsibilities of that railway at a time when the ravages of war had been in existence for nearly five years. The text of Mr. Dean's appreciation is very true as I have found to my personal advantage. Mr. Ellson's policy of efficient drainage and ballasting under the tracks of the Southern Railway is today reaping a reward which is handsomely paying for the time and money which was spent during his period of office. British Railways are very fortunate today to possess the tracks on their Southern Region in the condition in which he would have maintained them had this task still been his responsibility.

Yours faithfully,

V. A. M. ROBERTSON,
Chief Civil Engineer

Passenger Services on the West London Railway

34, Gordon Square,
London, W.C.1. October 4

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I was interested in Mr. Skeat's suggestions in *The Railway Gazette* of September 30 for improving services to Olympia which would certainly be a great benefit for the passengers concerned.

However, I can see a difficulty in that the eastbound line east of Earls Court which has to carry the combined Hammersmith and Putney traffic cannot pass any more trains in the peak hour. The siding alongside this line is only used for reversing the Olympia shuttle service trains which run during certain exhibitions and it would appear possible to adopt something like Mr. Skeat's suggestions if the existing through line carried Kensington High Street trains only and the siding were made into a running line for eastbound trains to Gloucester Road.

Yours faithfully,

R. B. HOUNSFIELD

An American on British Railways

Railway Age,
Chicago, Ill. October 10

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I was shocked to read, in your issue of August 12, a quotation in the "Scrap Heap" from an alleged interview I had with a reporter from the *Daily Herald* in which I was made to appear to eulogise the British railway system and to attribute its excellence to the fact that it was nationalised 20 months before. I took no action at the time to set the record straight because I had no desire to raise a rumpus about the reported remarks of a traveller who is, after all, a reporter himself and not a public figure.

But so widespread and so discriminating is the readership of your excellent periodical that I have become more and more embarrassed by letters and remarks calling attention to the contradiction between what I was quoted as saying in the *Daily Herald* and what I wrote back home in *Railway Age*. I owe it to my own paper to set the record straight.

I would guess that the alleged interview which appeared in the *Daily Herald* was the product of successive sub-editors, and the final product probably bore little resemblance to the notes made by the reporter who interviewed me at Liverpool.

On the day of the interview, fresh from the extraordinary hospitality of individual British railroad officers and from the highly informative programme of *technical*—not political—news-gathering laid out for me by the Public Relations Officers of the Railway Executive and of the Regions, I was in no mood for—nor would any purpose have been served by—denouncing nationalisation. I told the reporter that I was an advocate of free enterprise and that if there were any faults in the railroads resulting directly from nationalisation I would surely discover them and make the most of them. Then I went on to talk about specific features of British operation which I admired. These points included the zonal system for the handling of smalls by combination movement in rail-cars and truck lorries; incentive schemes and mechanisation for speeding up handling at freight stations; and the amazing handling of heavy seasonal passenger traffic. These accomplishments, it is evident, have nothing to do with nationalisation; they were common practice long before the Transport Act of 1947 was passed.

The reporter—or his chiefs—took the remarks I made about these specific and long-term phenomena and applied them to the entire field of British railway operation and service. Hence, I was made to say, among other things, that British railroad management has solved all its problems with regard to passenger service—which that same management would, I am sure, be the first to deny. To top it, the *Daily Herald* went on to link my alleged eulogies to the fact of nationalisation—with which they had nothing to do whatever.

It is perfectly clear that 20 months does not give sufficient time for the virtues or defects of nationalisation to show up clearly in service, operating efficiency, and the like. Whatever of good and bad that exists in British railroading is the result of many years of practice and reflects as well wartime strains and post-war adjustments.

Railway Age articles dealing with Britain made little reference to service as a criterion in judging the effect of nationalisation. To so appraise it would be unfair to British management—both in its role as a servant of the State now and as private corporate entities before 1948. What we tried to show were the basic fallacies in the belief that nationalisation is a kind of magic which, *per se*, brings good service, lower rates, profit to the State, contented workers, and the end of so-called destructive competition.

The Railway Gazette itself fought nationalisation of the railroads with expertness and with courage on the same grounds. When the sheep and the goats are counted from on high, may the undersigned be counted in the camp of *The Railway Gazette*—not the *Daily Herald*.

Yours faithfully,

W. H. SCHMIDT, JR.
Transportation Editor

A Remarkable Railway Renaissance

70, Rowlands Avenue,
Hatch End, Mddx. October 14

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—In the correspondence columns of your October 7 issue one notices that Mr. R. Bell and his friend "Sceptic" appear to have entered into a pact to hurl a massive "We told you so" across the Atlantic at the hapless Mr. John W. Barriger, of the little Chicago, Indianapolis & Louisville Railway, and to discredit what that gentleman has succeeded in doing during the past two years to set the "Monon" on its feet.

While rubbing their hands over Mr. Barriger's apparent failure, however, Mr. Bell and "Sceptic" have failed to note that the 6 per cent. loss in freight revenue of the Monon over the past year has to be set against the 15·2 per cent. average loss of freight revenue by the whole of the railways of the United States during the same period (due largely to formidable and increasing road competition), including the big competitors who, according to Mr. Bell and "Sceptic," ought to be frightening Mr. Barriger out of business. Apparently the Barriger policy has not been so calamitous a failure after all.

All the world loves a "trier," and many of us have admired the way in which Mr. Barriger has taken a small and moribund railway and has transformed its services; and from many sources it is possible to estimate how his energy and drive have been appreciated by the public in the area of Indiana served by his railway. Though some of the ideas may have been a little grandiose, it is better to have tried, even if in some measure—though by no means entirely—to have failed, than to have sat still and done nothing.

Possibly Mr. Bell and "Sceptic" prefer the British method of maintaining the *status quo ante*, whereby, for example, the "Royal Scot" in 1949 takes 26 min. longer to reach Glasgow from Euston than the 8¼-hr. timing of the same train agreed between the West and East Coast companies after the "Race" of 1895, or the "Cornish Riviera Express"

23 min. longer to run from Paddington to Plymouth than when that famous express first took the Westbury route in 1906. Nevertheless it is whispered that even British Railways are losing quite a lot of money also.

Yours faithfully,
CECIL J. ALLEN

Pulsating Smokeboxes

23, Sebert Road,
Forest Gate, E.7. October 8

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—With reference to pulsating smokeboxes discovered by Mr. Tuplin, as published in *The Railway Gazette* of August 26, I believe that the discovery was based on an optical delusion. Smokeboxes do appear to rise and fall when abnormally hot (abnormally hot caused by smokebox doors drawing air), and this discovery is nothing but a mirage (as seen in a hot desert) caused by the hot smokebox radiating its heat to the air immediately surrounding the smokebox.

If Mr. Tuplin looks down the railway track on a hot day, he will discover pulsating railway lines, for the same mirage reasons. As regards the question of safety valves, about sixty per cent. of safety valves are defective, and their rectification is a matter of wish and will to do it. Boiler pressure as referred to by Mr. Latham, in his letter published in *The Railway Gazette* of September 30, has nothing to do with leaking safety valves, as there are boilers in this country working at 600 lb. per sq. in. What is wanted is adjustment under steam, instead of adjustment under hydraulic pressure.

Yours faithfully,
F. WOODHOUSE

Stratford - Fenchurch Street Electrification

16, Colebrooke Drive,
Wanstead, E.11. September 30

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—As I have not had an opportunity of seeing the reference to the abandonment of the Stratford-Fenchurch Street service in the Working Party Report on London Traffic, Mr. Pascall's letter in your issue of today comes as a shock.

It seems incredible that in Bow, a busy industrial area, there should now be only one railway station (there were formerly four), and that only serving the West End and the south West Ham and Barking districts. The new Shenfield electric service gives no benefit whatsoever, and the tube lines from Leytonstone and beyond by-pass the area. Workers in Bow coming from Leytonstone, Loughton, etc., have no direct rail communication, and are left with the alternatives of road transport (poor from Wanstead and beyond), or changing at Mile End (Central Line) and returning to Bow Road by District.

As we were promised a service from Stratford on the Fenchurch Street line (which would be available both for Ilford line and Leytonstone line passengers), we are particularly dissatisfied after waiting patiently for ten years.

I hope that the question of the provision of the service as originally proposed will be given early consideration.

Yours faithfully,
F. MING

Passenger Fares

31, Redcliffe Square,
London, S.W.10. October 11

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—On Mr. Laundy's letter in your issue of October 7, I would first submit that the special financial difficulties which beset the railways under present conditions are by no means unappreciated outside. What the general user will find it hard to concede, however, is that he should pay more for his road services than they cost.

He will agree that the wider social costs as well as the direct costs of these services must be considered. The congestion of our urban roads even in a time of stringent rationing of private motoring is a pointer to one aspect of this problem. As to track costs, it was, of course, widely held before the war that road transport, through licensing and petrol duty, paid its appropriate share, and more, of the national road bill. (I have seen no authoritative post-war re-assessment of this submission.)

If one is to go beyond this point, however, one must first hesitate to accept such suggestions as Mr. Laundy's that certain traffics lost to the railways should have been retained by them even at higher rates. With the reservations made above, there is nothing intrinsically unfair about lower road rates.

Before the idea of pooling track costs and equalising charges becomes at all presentable, users will—it is my concern to suggest—expect to see evidence of a comprehensive technological review of services and the whole structure and maintenance of the system supporting them. I have in mind problems such as the unification of terminal facilities in major towns, the technique of local distribution, and the economics of rural services. This need arises from a situation which does not reflect on the efficiency of railway managements, nor do I imagine that the questions concerned are being overlooked, or are simple, or capable of overnight solution. The anxiety of the user is to keep the two sides of the problem—services and their cost, on the one hand, and rates on the other—in relation to each other. To subsidise an expensive service by raising the charges on a cheap one is a proposition that cannot be swallowed neat.

Yours faithfully,
MEDWYN ORMEROD

A Roundabout Goods Routing

16, Boundary Road,
N.W.8. October 11

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Looking through my old relics the other day, I came across a letter dated 1901 from the then District Goods Manager of the old Great Northern Railway in Manchester to an official on the same company. It runs thus:—

"Owing to the G.C. Co. making themselves very awkward in connection with traffic from the Continent which has passed through Grimsby to Deansgate *via* Boston, Colwick and Brinsley, I have induced the receivers here to divert business to Goole and in order that the G.C. Co. shall not enjoy the haulage of the traffic from Doncaster to Guide Bridge, I have arranged with the Lancs. and Yorkshire Co. for it to be invoiced and labelled *via* Askern, Doncaster, Colwick and Brinsley. Will you please instruct your Doncaster people to be on the special lookout for this traffic, see that it does not get into the G.C. Co's hands and that it is forwarded to Colwick by first available train. Please let me hear you have given the necessary instructions."

The distance *via* the Colwick route is approximately 177 miles compared with the two direct routes of 100 and 109 miles—truly, a commentary on the railway economy of the times. How far have we progressed? It has taken 124 years and the loss of much traffic to road to prove, at last, the fallacy of routing to the commercial requirements of securing a larger share in the division of receipts, and to acknowledge the obvious superiority of operating considerations.

Yours faithfully,
R. T. MUNNS

Future of the Rural Branch Line

18, Wheatsheaf Close,
Woking, Surrey. October 15

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Much interesting correspondence on this subject has appeared in your columns recently. May I add my piece?

I think that the traffic is there if only the railways would go after it. To that end the railways should try where possible to run trains at regular timings but not necessarily at regular intervals—there could be gaps at mid-morning and mid-afternoon periods in some cases—prominently advertise by notice boards in the actual towns and villages what the local railway services and fares are, and try and improve the waiting-room accommodation and the rolling stock. Certain Southern Region electric services operate in comparatively rural areas but they succeed largely because of the application of the foregoing principles.

I recently spent a holiday in Devon. There the Southern Region seems to operate its local services purely as feeders to main-line trains to London. This is bad, as it makes local trains late due to happenings perhaps 220 miles away. There was little evidence of any attempts to cater for local needs. For instance, half-hourly bus services with double-deck buses, often run in duplicate, operate between Barnstaple and Bideford and Barnstaple and Ilfracombe along roads that follow the railway almost exactly, but the rail service is very poor and packs up completely about 8.30 p.m., thus forcing even the purchasers of holiday season tickets on to the buses when seeking evening entertainment in the towns.

There are two branch lines near here that I feel could attract more traffic. They are the Guildford-Horsham and Alton-Winchester lines. Both possess a poor evening service and the service must be quite impossible to the housewife in Cranleigh or Alresford who might wish to go to Guildford or Winchester for morning shopping or an afternoon visit to the pictures.

Yours faithfully,
J. B. LATHAM

The Scrap Heap

Out of Gauge

A relief steam train from Sevenoaks, Kent, recently was made up of carriages which could not go through the tunnel between Tonbridge and Tunbridge Wells. Passengers had to get out at Tonbridge and make their way by taxi or Green Line. —*From the "Daily Mail."*

* * *

Hygienic Pillows

For the comfort of passengers who do not have sleeping berths, the North Eastern Region is providing hygienic paper pillows at Newcastle Central Station to travellers on night trains to London. The whole pillow is encased in a cellophane sealed envelope.

* * *

100 YEARS AGO

From The Railway Times, *Oct.* 27, 1849

Namur and Liege Railway.—The remaining part of the Mons and Manage section of this undertaking was appointed to be opened for traffic on Wednesday last. The railway was completed several months ago up to its junction with the Belgian State lines at Mons and Manage, but in consequence of the works for the enlargement of the Government station at Mons, to accommodate the additional traffic expected from the new line, not being completed, the Government would not permit the Company to bring the traffic on the line further than Nimy, which is situated about three-quarters of a mile from Mons. The total length of the railway, including the branch, is 22 miles. There is at present a good traffic on the line, which it is expected will be considerably increased by the opening to Mons. The line passes through a rich mineral district, and will not only form a complete junction with the State lines at both ends, but, will, after the opening, be in direct railway communication with the Great Northern of France Railway.

* * *

Cat Took Train to London

A tortoiseshell cat found wandering about the refreshment room at Euston Station was discovered from an address on its collar to belong to a resident of Heysham. Heysham is 237 miles by rail from London. The owner works at Heysham Harbour, and it is believed that the cat followed her there and then wandered into the Heysham-London boat train. The R.S.P.C.A. took charge of the animal.—*From "The Daily Telegraph."*

Luxury Travel

British Railways, proudly nationalised, still tolerate a tiny remnant of private enterprise in their capacious bosom. For the particular traveller there is such a thing even yet as personal service and comfort for the payment of a little extra. He can get it once a day on the Glasgow-London (*via* Edinburgh) Pullman train. The service begins even before he boards the train.

An attendant who looks like a B.E.A. pilot is on the platform to be his guide. Stepping into the coach is like entering a luxuriously comfortable lounge. The seats are deep armchairs, one on either side of a wide passage. There are footstools. The whole coach is wood-panelled and mirrored. There is an all-pervading atmosphere of well-being. Third class accommodation is scarcely less palatial.

A few minutes before the train is due to start a loud-speaker comes alive. A modulated voice requests non-travellers to step down to the platform. Two minutes before departure time the voice again gives warning that the "Queen of Scots" is about to leave.

At 10.20 it steams out of Queen Street Station. One cannot help but notice, with pleasure, that no noxious smoke seeps into the coach as the train lumbers up through the tunnel.

Then the attendant appears. He carries what looks at first glance like the base of an automatic telephone. It is a ticket machine similar to those used on Glasgow Corporation tramcars. He has come to collect the surcharge payable for the pleasure of travelling thus luxuriously. There is something fascinating in being handed a flimsy slip of paper in return for 12s.

The ordinary fare for the journey goes to British Railways, the surplus to the Pullman Car Co. Ltd. for providing the additional amenities.

Coffee is served. Your table is already there. Again the voice is heard through the loud-speaker to say that the train is now approaching Edinburgh and advising passengers intending to alight to make sure they have all their luggage.

The stop in the station is brief because there is no freight loaded in the guard's van.

Again the voice this time invites you to purchase newspapers or periodicals from an attendant who will bring them through the train.

Lunch is served at the maximum price of 5s. but it is a good one.

It is an unorthodox train. It misses York but touches Harrogate and Leeds. For the traveller from Glasgow to Harrogate it saves three hours' travel. One alights feeling like an American millionaire.—*From "The Glasgow Herald."*

* * *

Pre-Nationalisation Pastry

The Railway Executive, British Railways, has from time to time been charged by its patrons with devoting an undue proportion of manpower and material to obliterating old inscriptions and initials in order to replace them by the initials B.R. together with the relevant region in brackets.

A reader who recently travelled on the "Norfolkman" to Norwich noticed that each table-cloth in the dining car had been brought up to date with a blue embroidered B.R. (E.) in the centre, and that most of the crockery had been similarly modernised with the initials B.R. (E.), but that pastry which was served with morning coffee was still embossed with the initials L.N.E.R. The reader suggests that, though the pastry was not bad, the psychology was.—*From "The Times."*

* * *

Icy Comment

The Government was accused of a "very definite pro-drink policy" when Mr. R. Wilson Black gave his presidential address to the annual meeting of the United Kingdom Alliance, at Manchester, on October 18.

Mr. Black criticised a British Railways booklet intended for American visitors, and said it contained one and a half pages "devoted to drinking hints for thirsty visitors." Ten o'clock closing was held up to ridicule, and "the fallacious explanation is given that it is due to the austerity of the times in which we live."

The Railway Executive had no comment to make on the criticism of the booklet. An official explained, however, that the booklet, written by an American and entitled "What—No Ice?" was humorous and contained 32 pages of suggestions and information for American visitors.—*From "The Scotsman."*

* * *

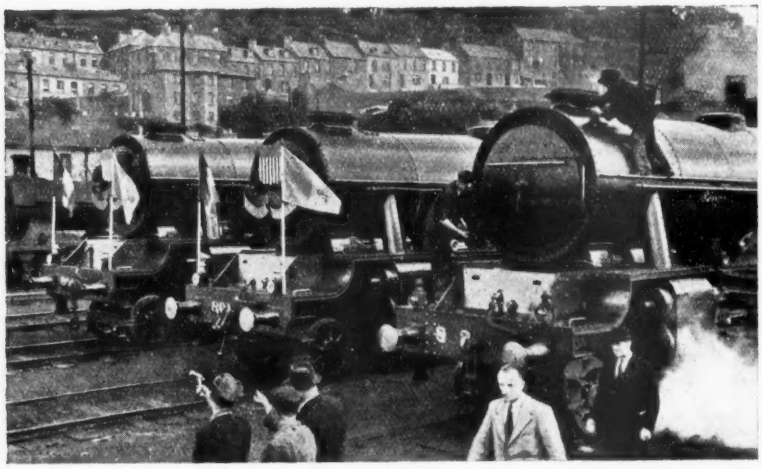
Progress

(Typist saves half-hour by travelling to work by scooter.—Daily press.)

Publish abroad
The fame of Miss Giraud,
Who, tired of travelling by bus,
Without the slightest fuss
Decided it would pay to use her feet
And reach her destination *tout-de-suite*.
Shedding the shackles of a staid commuter,
She bought a scooter.
Now, every day,
In almost every way,
Miss G. improves in health and disposition,
An excellent condition.
And, under her own power,
Curtails her journey time by half an hour.
E'en so, our cynic minds
Wonder if winter's winds
Will make
Miss G. forsake
Her transport, so lop-sided,
For something sheltering, though now derided,
As others do;
In short, reverting to
(When faced with mud and frost and ice and snow)
The *status quo*.

A. B.

Three 4-6-0 Locomotives at Cork



First meeting of the three C.I.E. 4-6-0 locomotives "Maeve," "Macha," and "Tailte." The event was occasioned by the operation of the Boston specials from Cork to Dublin for Archbishop Cushing's pilgrims

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

NEW SOUTH WALES

The "Riverina Express"

The new "Riverina Express," recently placed in service between Sydney and Albury, consists of six saloon-type coaches (two first class and four second class), one buffet-diner, and one combined power and brake van.

The first class, which are panelled with maple, have the rotating and reclining type of seat that may be adjusted in four different positions by means of a small lever fitted under the armrest. In the second class, which are panelled with silkyoak, the seats are the turnover type with a fixed angle of inclination.

Five of the six saloons have one transverse compartment for the accommodation of small parties. In the other one, which is marshalled adjacent to the buffet car, there are two transverse compartments, one for the buffet-diner staff and one for the train hostess. The buffet-diner is fitted with equipment to enable hot meals or cool refreshments to be served at a long counter which accommodates 27 seated passengers at a time.

Features include air-conditioning, fluorescent lighting, individual reading lamps, ash-trays fitted into the armrests of seats in the smoking saloons, continuous luggage racks along the sides of the coaches and on the partitions of the compartments, and a public address system to direct the attention of passengers to places and objects of interest along the route and to give timetable information.

Eventually, eight of these expresses will provide daylight services between Sydney and distant country districts. The reservation of seats is compulsory, and may be made fourteen days in advance of the day of travel.

CEYLON

Locomotive and Traffic Departments Reorganised

Since 1925 the Locomotive and the Traffic Departments of the railway have been organised on a "Divisional" basis. The railway was divided into three Divisions, each under a Transportation Superintendent responsible to the Operating Superintendent for movement of all traffic and the supply of motive power and stock as well as the maintenance of locomotives and rolling stock. For this purpose either the Transportation Superintendent or his Assistant was required to be a mechanically-trained officer.

Although this system worked satisfactorily it was felt that for better maintenance the Chief Mechanical Engineer should be made fully responsible for all mechanical equipment, but an immediate changeover to a departmental system was not favoured because of the existing shortage of motive power and rolling stock to meet full traffic requirements, which rendered necessary maximum co-operation and co-ordination between the Mechanical and Traffic sections.

The Departmental System has accordingly been introduced on a modified scale at "higher level," leaving the Divisional System at "lower level." The Chief Mechanical Engineer has the responsibility, previously that of the Operating Superintendent, for the working of running sheds, plant and machinery and their administration as the head of a sub-department in addition to the railway mechanical workshops. The Operating Superintendent continues to be responsible for the traffic side of the Transportation Department and is the head of this Sub-Department (Traffic). The three Divisional Transportation superintendents are responsible to the Chief Mechanical Engineer for all matters connected with the working of the running sheds and plant and machinery and to the Operating Superintendent in respect of all traffic matters.

The system is on trial and will probably be continued until a sufficient stock of locomotives and carriages and wagons has been built up, when it should be possible to extend the Departmental System to "lower level." There would then be separate District Traffic and Locomotive Superintendents, each responsible to his own head of Sub-Department.

CANADA

Season Ticket Rates Increased

The Canadian Passenger Association announced that season ticket fares would be increased on October 15. The move was necessitated by the serious losses being suffered by the railways in season ticket traffic, even in the most heavily-travelled areas. It is the first general increase in season ticket fares since 1920.

ARGENTINA

Important Developments Foreshadowed by Minister

Lt.-Colonel Juan F. Castro, Minister of Transport, recently spoke on the reorganisation of Argentine railways to meet present-day requirements. He said that private enterprise had left the country with a fan-like railway system based on Buenos Aires instead of facilitating communication between all parts of the Republic, which was the present Government's objective.

The railways should pay their way, making neither a profit nor a loss. Revenue could be augmented, not by increasing rates and charges, but by better services, standardisation, elimination of competition, increased comfort for passengers, and so on.

The railways would be re-equipped as soon as possible, and the best possible use would be made of the new material. Emphasis would be placed on the use of diesel and diesel-electric motive power.

The co-ordination of all forms of transport was being studied in the light of present conditions.

Eventual gauge unification was one of the long-term objectives. By the end of 1950, the railway administration would be de-centralised and set up at points such as Rosario, Córdoba, Azul, and Junin, which are closer to the centres of the respective systems.

The rearrangement of terminal facilities in Buenos Aires was being studied. Goods and main-line passenger traffic of the General Mitre (broad gauge), General San Martin (broad gauge), and General Belgrano (narrow gauge) Railways would be dealt with at the Retiro terminus of the last-named. The suburban services of all three would be based on the Presidente Perón terminus of the General Mitre Railway. The trains of the standard-gauge *ex*-Central Buenos Aires (now General Urquiza) Railway would also be dealt with at Retiro by means of mixed-gauge rails.

A new terminal station for the main-line and suburban services of the General Roca (broad gauge) and Sarmiento (broad gauge) Railways would be constructed, with access over the route of the narrow-gauge former General Buenos Aires Railway at both high and low level, with a tunnel under the Riachuelo river. The electric suburban services of the Sarmiento Railway would be extended in a tunnel from the present Plaza Miserere terminus to a new terminus at Plaza Mayo, in combination with the existing underground railway systems.

Second class coaches would be replaced by one-class vehicles. Other improvements were under study, such as unification of accountancy systems, the production of a comprehensive general public railway timetable for all lines, mechanisation of booking offices, use of radio for inter-section communications, and the introduction of automatic train control.

FRANCE

Acceleration of the "Nord Express"

The French winter timetables in force from October 2 show the "Nord Express" as running over the Northern Region, between Paris Nord and St. Quentin (154 km.) in 96 min. eastbound and 101 min. westbound, the latter timing allowing for making up lost time. Jeumont, the Belgian frontier station (239 km.) is reached in 163 min. eastbound. Journey times from Paris to Hamburg Hauptbahnhof (963 km.), Copenhagen Central (1,527 km.), and Stockholm Central (2,181 km.) are given as reduced to slightly over 16 hr., 27 hr., and 39 hr. respectively, there being considerable acceleration over the German Federal Railways. The "Nord Express" is a heavy train between Paris and Liège, conveying ordinary coaches of all three classes, and sleeping cars between Paris and Stockholm with single (first class), double (second class), and three-berth (known in France as *touriste*) compartments.

Variable Freight Rates

An important new departure is that railway freight rates must vary according to the route used. Hitherto they have been uniform throughout the country. These rates are based in part on an average cost price. If the railways can vary their freight rates, not merely according to the value of the goods carried, but on the conditions of the route, profile of the line, density of the traffic, facility of finding return freight, such considerations would have a great influence on the cost price. The railways would be in a better position to compete with lorries, which are free to pick and choose, taking the cream of the traffic, on routes such as from Paris to Lyons and Marseilles, and to Bordeaux, Havre, and other ports.

Electric Locomotive Trials

Another trial run of the new prototype electric locomotive CC 7001, which on May 26 covered the distance of 362 miles from Paris to Bordeaux in 4 hr. 26 min. at an average speed of 81·4 m.p.h. (see page 646 of June 10 issue), was made on October 14 from Paris to Tours, 146 miles, in 2 hr. 6 min. Near Meung-sur-Loire, the speed was 93 m.p.h. and then for a distance of 12 miles 99·3 m.p.h. or 160 km.p.m., the maximum allowed. Between Amboise and Vouvray the locomotive slowed down to 60 and then to 50 m.p.h., but arrived at Tours two minutes ahead of scheduled time. It is stated that an order for 35 of the locomotives has been given to the Alsthom workshops at Belfort. The locomotive is to run on the Paris-

Lyons line when electrified. It is expected that the section Laroche to Dijon will be operated electrically early next year.

Large Credit for the S.N.C.F.

A group of Paris banks has opened credits of fr. 30,000,000,000 for the S.N.C.F., guaranteed by stocks of supplies. The credits were immediately taken up. *Le Monde* explains that the credits were similar to normal current operations between the S.N.C.F. and the banks. The exceptionally high figure is explained by the fact that because of the blocking of allocated credits, the S.N.C.F. had decided to cancel many orders. This decision had placed numerous steel and textile firms, particularly in the Nord department, in a difficult position. Some factories, working exclusively for the S.N.C.F., had been obliged to dismiss their staff and others had work only for a few weeks.

Paris Passenger Transport Board

Budget estimates show a deficit of more than fr.3,000,000,000 for 1950. The deficit is due in part to increased expenditure required for renewal of equipment and material, as well as to the reduction from 20 to 15 per cent. in the State and municipal subsidies. Monsieur Roger Dégornet, a member of the Board who has conducted an inquiry into the question of raising the Metropolitan railway and bus fares, has come to the conclusion, according to the journal *Le Monde*, that it will be necessary not later than January 1 to raise the price of bus tickets to fr. 6.50 and Metro second class tickets to fr.13; the latter are at present fr. 10 when bought in "carnets" costing fr. 100.

GERMANY

Developments in the Soviet Zone

With a view to saving coal the locomotives belonging to the railways in the Soviet Zone are gradually to be converted to pulverised coal firing. It has been claimed that this will save from 50 to 75 per cent. on briquettes.

Increases in the average loading of goods wagons by 6·6 per cent. and in the average weight of goods trains by 5 per cent. have been decreed by the Berlin railway management for Eastern Germany.

A feature of the movement of goods in the zone is the reparation traffic, concentrated on a few lines. On the Erfurt-Magdeburg and Leipzig—Frankfurt-on-the-Oder main lines there are at present eleven goods trains a day, working to regular schedules, taking reparations consignments to destinations in the east.

The Russian 5-ft. gauge is now reported to be extending westwards. The Berlin Reichsbahn-Generaldirektion is said to be elaborating a scheme for the laying of a 5-ft. track on all the main lines in Eastern Germany. Similar arrangements had been made in Poland some time ago. At present the Russian gauge extends as far as Katowice and Wroclaw (formerly Breslau) in south-western Poland, and to Frankfurt-on-the-Oder in Eastern Germany.

BELGIUM

Electrification to Charleroi

Electric operation was inaugurated on the main line from Brussels to Charleroi on October 15 by the Minister of Transport. The steam running time of 56 min. has been reduced to 48 min.

Publications Received

Trains Annual, 1950. Edited by Cecil J. Allen. London: Ian Allan Limited, 282, Vauxhall Bridge Road, S.W.1. 10 in. × 7½ in. 96 pp. Fully illustrated. Price 7s. 6d.—This publication, which has been considerably enlarged, contains many interesting articles concerning railways in this country and overseas, by authors well known to our readers, and covers a diversity of subjects certain to interest those with an enthusiasm for all aspects of the railway. There is the personal account of a 680-mile trip over the Canadian Rockies in the cab of a 6,000-h.p. diesel locomotive during which journey the train climbs to a height of more than 5,000 ft. There is also a description of the scenery as seen from the driver's cab, all graphically told. In addition to other entertaining features the edition contains the account of a trip from Glasgow to Stranraer when the train encountered a blizzard and it was with the greatest difficulty that the passengers were able to reach their destination, unfortunately not without loss of life. "Railway Reminiscences," an account of the "Midday Scot" covering a period of 50 years, will be read with great interest. The edition also contains an article describing the testing of a locomotive at the Rugby testing plant. There are also many excellent illustrations, some of which are in colour.

Route Surveying. By George Wellington Pickels and Carroll Carson Wiley. Third edition. London: Chapman & Hall, Limited, 37, Essex Street, W.C.2. New York, U.S.A.: John Wiley & Sons Inc. 7 in. × 4½ in. 434 pp. Price 28s. 6d.—The third edition of this text-book contains a number of revisions, notably Chapter 6, which has been entirely rewritten. The new chapter, dealing with the string-lining method of curve checking, fully explains the basic principles involved and the reasons for each operation in the field. The "bracket" method originated by Portser, a Pennsylvania Railroad officer, is included for the first time in addition to the A.R.E.A. method.

Another new feature is the inclusion in Chapter 3, on Distance, Curvature, and Grades, of graphs showing (*a*) freight-train resistance for cars weighing from 20 to 80 tons at speeds up to 70 m.p.h.; (*b*) locomotive resistance of steam and diesel locomotives at various speeds; (*c*) drawbar-pull as noted on actual test runs and those computed theoretically; and (*d*) tractive-effort exerted by a 1,000-h.p. shunter, and by 4,000-h.p. (two-unit) and 4,500-h.p. (three-unit) diesel-electric passenger and freight locomotives, together with h.ps. developed. The text is thus brought quite up to date. There are other modifications in the chapters on Circular Curves, Spirals, and Earthwork, making for clarity and omitting such features as logarithmic tables, now superseded by calculating machines. The value of this excellent work has, therefore, been considerably enhanced.

The Australian Tramway Album. Brighton Beach, Victoria, Australia: Traction Publications, 29, Seymour Grove. 10¾ in. × 8½ in. 50 pp. Numerous illustrations. No price stated.—The publishers refer to this album as a comprehensive pictorial record of modern tramway rolling stock in Australia—where trams carry more than half the urban and suburban passengers—with examples of earlier vehicles. They have ably accomplished their aim by restricting the text to a minimum to give more space for the many illustrations, which range from those of the newest cars at Brisbane and Melbourne, to old cable, steam, and horse cars and form as complete a cavalcade of Australian tramcars, past and present, as the student could desire.

Go.—The August issue of *Go*, published in English, French, and Spanish by World-Wide Publications Limited, Luxembourg, contains the usual variety of lavishly illustrated articles on travel topics. S. P. B. Mais writes on the seaside resorts of Wales, Charles d'Ydewalle on Sweden and Finland, and Liliana Brisby on the 1949 Shakespeare Festival at Stratford-on-Avon. Arthur Haulot, President of the Special Commission of the International Union of Official Tourist Organisations, contributes a study of passport and customs regulations and of the action taken by the I.U.O.T.O. to overcome these obstacles to international travel. The September issue is devoted specially to Great Britain. Lord Hacking, Chairman of the Travel Association, stresses the importance of the overseas visitor to Great Britain, and especially of the less wealthy tourist. There are descriptive articles by Hugh Wray, on the English Lakes; by Thomas Burke, on English inns; by R. Graham Cooke, Director of the Society of Motor Manufacturers & Trades Limited, on the London Motor Show; and many others besides.

If Steel is Nationalised. By Aubrey Jones. London: Hodder & Stoughton Limited, Warwick Square, E.C.4. 9 in. × 6 in. 32 pp. Illustrated. Paper covers. Price 1s.—This pamphlet briefly outlines the Steel Nationalisation Bill and points out the effects of the Bill, if put into operation, on wages, the prices of consumer goods, and on the national economy. It then trenchantly states the alternative to nationalisation in the considerable measures of control, concerted action, and co-operation afforded by the Iron & Steel Federation and the Iron & Steel Board. The last and most valuable section lucidly presents a point of view, and facts regarding the very real degree of self-regulation and voluntary co-operation with the Government on the part of the steel manufacturers, which are probably unknown, or hitherto have been misrepresented to many of the electorate.

Thermal Insulation.—The Expanded Rubber Co. Ltd., of 675, Mitcham Road, Croydon, has issued an illustrated brochure describing the transmission of heat and the various methods of thermal insulation, with special reference to Onazote (expanded ebonite). Among the applications of insulation to transport are the holds of trawlers, ice-cream vans and tricycles, and, on British Railways, cylindrical milk tanks and two types of container, one for dry ice and the other for foodstuffs. Reference to the containers was made in *The Railway Gazette* July 29 and September 23 issues. All these are insulated with Onazote. There are some useful definitions, as of "conductivity," for non-technical readers, and a conductivity table of structural and insulating materials.

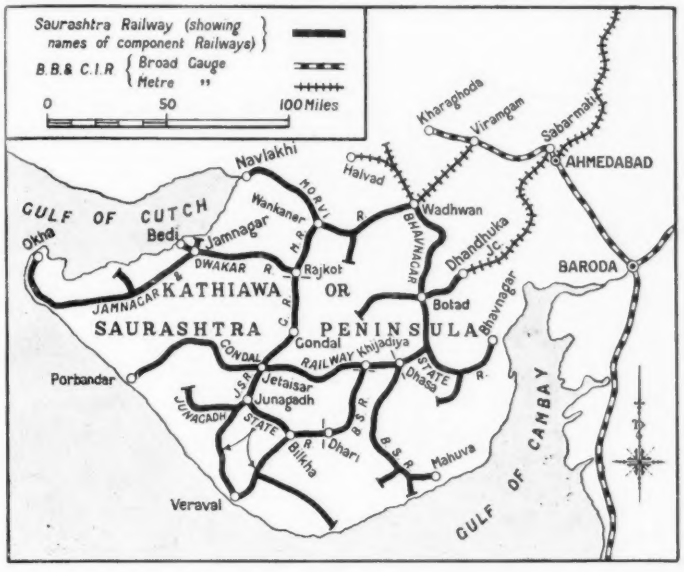
The Saurashtra Railway, India

Amalgamation of former States railways in Kathiawar

(From a Correspondent)

THE former five small separate railways in Kathiawar, in western India, have been reorganised, to form a single system, known as the Saurashtra Railway. The components were the Bhavnagar State, Gondal, Jamnagar & Dwarka, Junagadh, and Morvi railways, and their amalgamation as the Saurashtra Railway has a total route-mileage of 1,191 miles of metre-gauge and 157 miles of narrow-gauge lines.

The reorganisation under one administration is the result of the integration under the Dominion of India, of the seven major and numerous minor States of Kathiawar into a single unit now known as the United States of Saurashtra.



The Saurashtra Railway and connections

The headquarters of the new railway administration are partly in Gondal and partly in Bhavnagar at the headquarters of two of the former constituent railways, and there are three districts based on Bhavnagar, Junagadh, and Jamnagar, respectively.

Each district has from 300 to 350 miles of line, and Junagadh, the largest, has absorbed or is likely to absorb in the near future 53 miles of metre-gauge lines owned by the Gaekwar's Baroda State Railways for operating purposes.

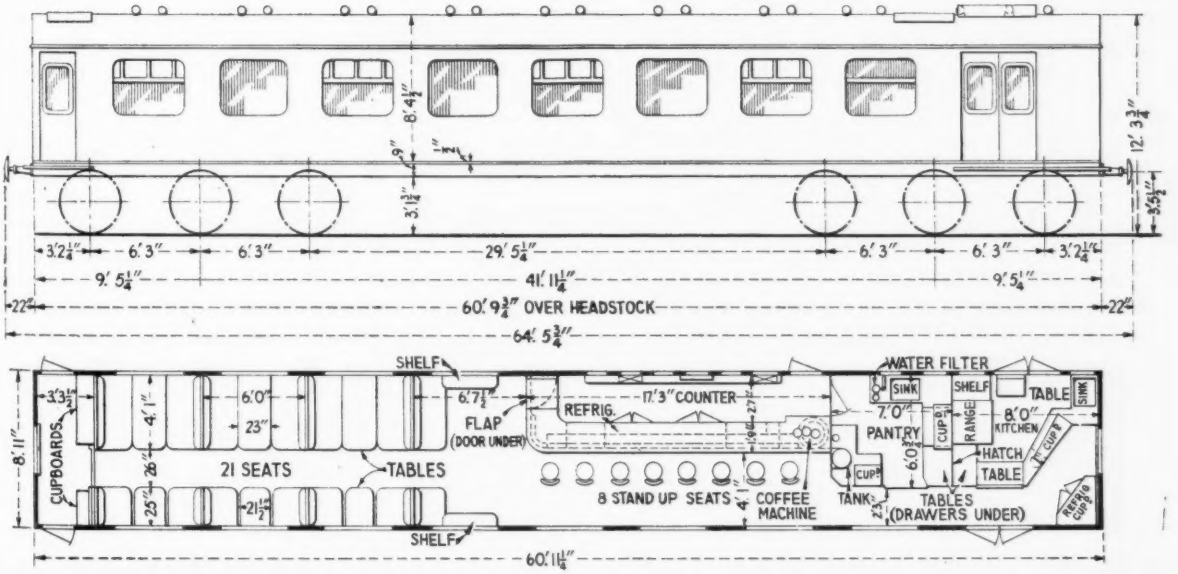
Rolling Stock

The new system has 146 locomotives, about 1,000 coaching vehicles, and about 3,400 goods wagons. There is virtually no interlocking in use, but a control system is in course of installation, and meanwhile wireless communication between the principal stations and the more important ports served by the railway is being established forthwith.

The ports to which the railway has access are Bhavnagar, Navlakhi, Bedi, Okha, Porbandar, and Veraval, ranged along the west coast and its estuaries. They are of more than usual importance now, as valuable imports of foodstuffs, vital to the Dominion of India at the present time, are handled at them.

The Saurashtra Railway is linked with the Bombay Baroda & Central India system at two points, and there is always a possibility of the two being amalgamated at some future date, should the Government of India decide to take over control of lines at present in Indian States. It is understood that such matters are under consideration at the present time by the Indian Government.

Western Region Buffet-Dining Cars



Layout and principal dimensions of a buffet-dining car, five of which have been in service on British Railways, Western Region, for a number of years. The illustration is from a drawing received in response to a letter from Mr. N. R. Walley, which appeared in our September 2 issue, advocating the use of combined buffet-dining cars on various services

Aluminium Bridge at Sunderland

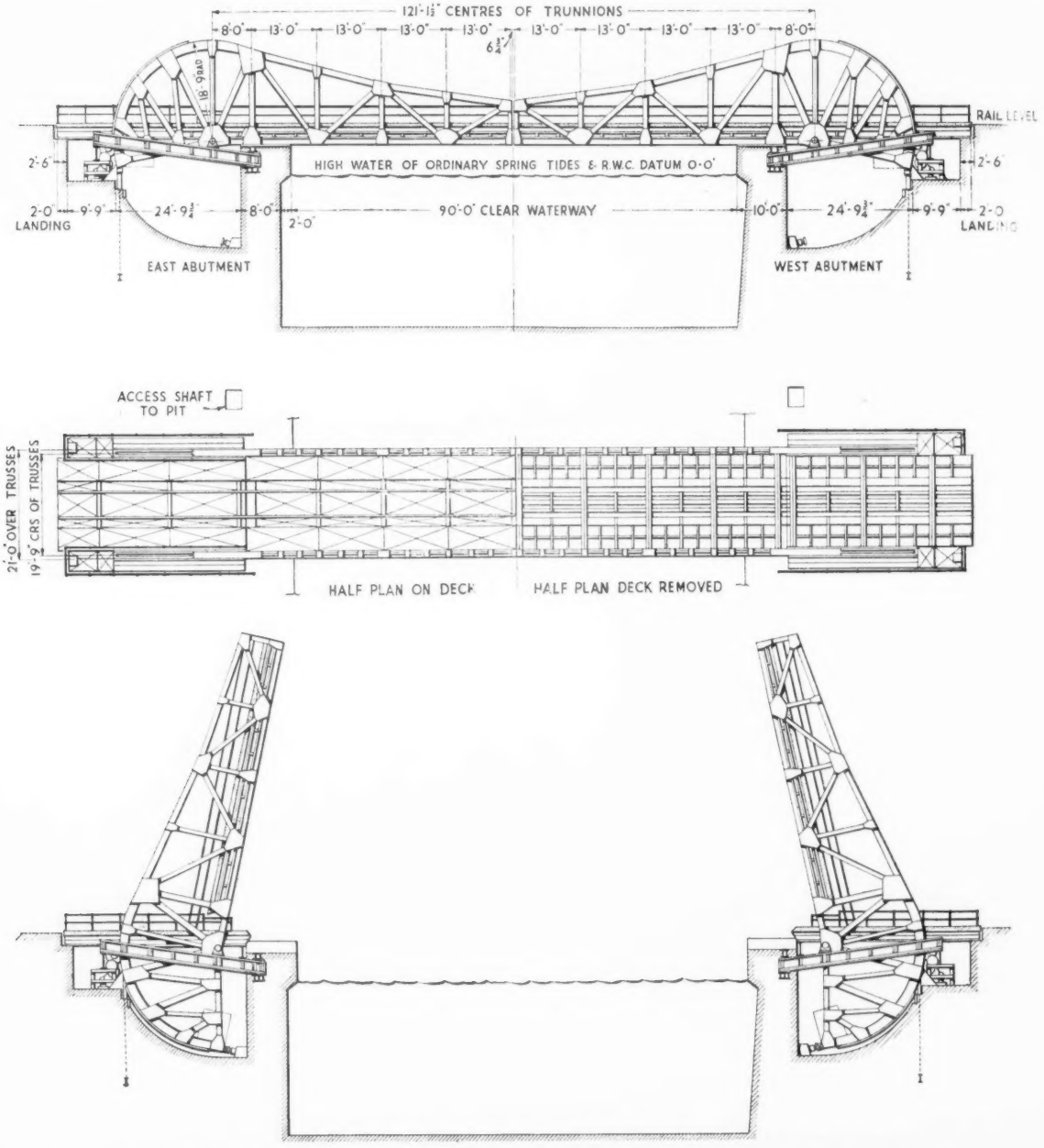
A double-bascule rail and road bridge with a superstructure fabricated from BS AW15 aluminium alloy and weighing 40 per cent. of a corresponding steel-built structure

BRIEF mention has already been made in these columns of the recent completion of the first all-aluminium alloy rail-cum-road bridge at Hendon Dock junction in the Port of Sunderland.

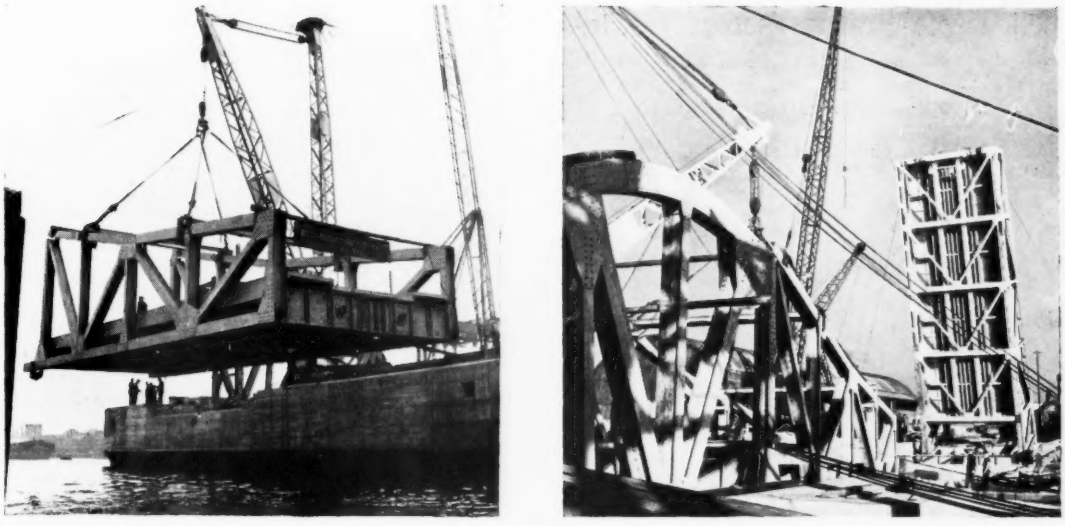
This metal has been used in bridgework to a limited extent during the past two decades, but only for individual parts of structures. For instance, the steel and timber flooring of Smithfield Street bridge, at Chicago, was replaced by light-alloy fabrication, to reduce deadweight, as long ago as 1933; this is believed to be the first practical application of this kind of metal to bridgework. This flooring has now been subjected to over 15 years of heavy traffic under adverse industrial conditions, and has proved reliable in every respect. Aluminium was not used for the main structure of the bridge, for which steel was retained.

More recently, a multiple plate-girder deck railway bridge over the Grasse River at Messena, in New York, was reconstructed, and the opportunity was taken to replace one of the spans with a light-alloy structure as described in our issue of November 29, 1946. This single span should provide valuable data on the durability and general service of aluminium alloy under railway conditions, especially as it is readily comparable with the remaining spans of the bridge which, though generally similar, are of steel.

Last autumn the River Wear bridge at Sunderland was completed with an entire superstructure fabricated in aluminium alloy. The new bridge at Sunderland, however, as well as being the first complete bridge to be built in light alloy, is



Elevation and plan of the bridge, showing bascules lowered for rail and road traffic, and also raised for navigation



Erection of one of the leaves, showing, left, completed arm being swung into position, and, right, arm in position and ready to be fixed to the quadrant of the span

believed to be the first bascule bridge constructed in this metal. It spans the junction between the Hudson and Hendon Docks, which has been widened as part of the Port of Sunderland Improvements Programme. An important feature was the short period required for erection and consequent saving in the time during which the dock had to be closed.

The design, fabrication, and erection were undertaken by Head, Wrightson Light Alloy Structures Limited, whose previous experience in aluminium-alloy work prompted the use of this material. Moreover, the light weight of the structure enabled the firm to prefabricate the movable spans at its works at Thornaby-on-Tees, and float them down. The first span reached Hendon Dock on September 12 last, and within a month erection was completed.

The General Design

The bridge is of the double-leaf trunnion bascule type, designed for rail and road traffic at the same level. The whole of the movable span, with the exception of the kentledge boxes, is fabricated in aluminium alloy, with the result that the moving leaves are about 40 per cent. of the weight of an equivalent steel-built structure.

The alloys used were selected by the firm in consultation with the Aluminium Development Association as giving the mechanical properties required. The span is designed to carry a 70-ton bogie railway wagon and a 75-ton road vehicle, plus 56 lb. per sq. ft. on the footways.

The plate for the bridge was supplied by the British Aluminium Co. Ltd., and consists of BS AW 15-type alloy, with an ultimate tensile stress of 15 tons per sq. in. The largest plate measures 18 ft. 6 in. × 3 ft. × ½ in. thick. Extruded sections are of the same alloy and have the same properties as the plate. One of the larger sections is a 12 in. × 3½-in. channel weighing 12·1 lb. per ft. The total weight of aluminium alloy in the movable leaves is 51½ tons and together they span a clear opening of 90 ft. for navigation. Actually, the trunnion bearings are 121 ft. 1½ in. apart, centre to centre, and the width between centres of the main trusses is 19 ft. 9 in. The clear width of the roadway, in the centre of which is the railway track, is 18 ft. 6 in., and rail level is 9 ft. 6 in. above high water at ordinary spring tide. The radius of the quadrants on the main trusses is 19 ft. 6¼ in.

The Machinery and Control of the Bascules

The machinery working the bridge is placed below ground level. Each leaf is operated by two 25-h.p. 3-phase slip-ring motors running at 1,440 r.p.m. on 50-cycle current at 415 volts and rated for half-an-hour. Each motor is capable of 100 per cent. overload, so that if its fellow motor fails, it can raise the leaf by itself against a wind pressure of 15 lb. per sq. ft. The motors drive, through reduction gears, pinions engaging circular pin-type racks fixed round

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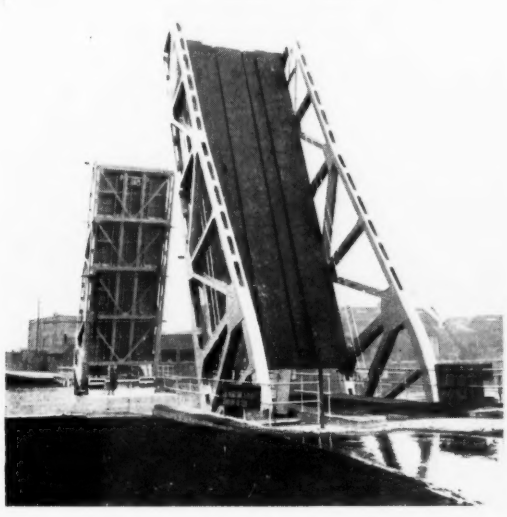


Bascules raised for navigation

Bridge complete with bascules lowered

Concrete Standards for Overhead Railway Electrification in Holland

Economic and æsthetic considerations in recent design

IN a recent article in our Dutch contemporary *Bouw*, Mr. E. Maas Geesteranus, Chief Engineer for Concrete Works of the Netherlands Railways, to whom we are also indebted for the photographs reproduced here, reviews the development in the construction of standards for the support of overhead wires during the progressive stages of railway electrification in the Netherlands. The choice of a suitable overhead suspension system is mainly, but not exclusively, an economic problem. In a flat and featureless landscape the appearance of the overhead equipment is also of considerable æsthetic importance.

On the first electrified sections, the overhead wires were carried by steel standards, which consisted of two channels with zig-zag diagonal bracing embedded in a concrete block. The overhead system for each track was self-contained, so that any damage to one line should not affect the adjacent line. This principle was subsequently abandoned when it was found that such damage was rare in practice.

Later sections were, therefore, equipped with steel gantries covering both tracks, resulting in considerable savings in material. In particular, the lines radiating from Utrecht are equipped with portals consisting of standard profiles of galvanised steel, which, though rather heavy, can be easily erected and can be almost universally applied. The galvanisation affords an effective rust protection for many years.

Even before the war, consideration was given to the possibility of using reinforced concrete so as to be more independent of steel supplies. An interesting solution was found in using portals in the shape of triple-articulation arches consisting of vibrated reinforced concrete. Such portals, manufactured by N.V. Wernink at Leyden, were used on the Hilversum-Utrecht line and have proved most satisfactory.

Some adverse criticism has been evoked, however, by the "tubular" appearance of these portals, which is said to stress rather than mitigate the monotony of the "polder" landscape. Also, the unusual arched shape of the standards calls for great care in manufacture and transport, entailing higher costs.

Post-war attempts at new solutions were prompted by the need to save steel, and the desire to simplify the concrete structures by using simple, standardised components. For the standards, hollow "Arkel" piles of vibrated concrete were chosen, carrying arched cross-beams of reinforced concrete with straight tie-rods. The tapered bottom ends of the standards are embedded in concrete blocks.

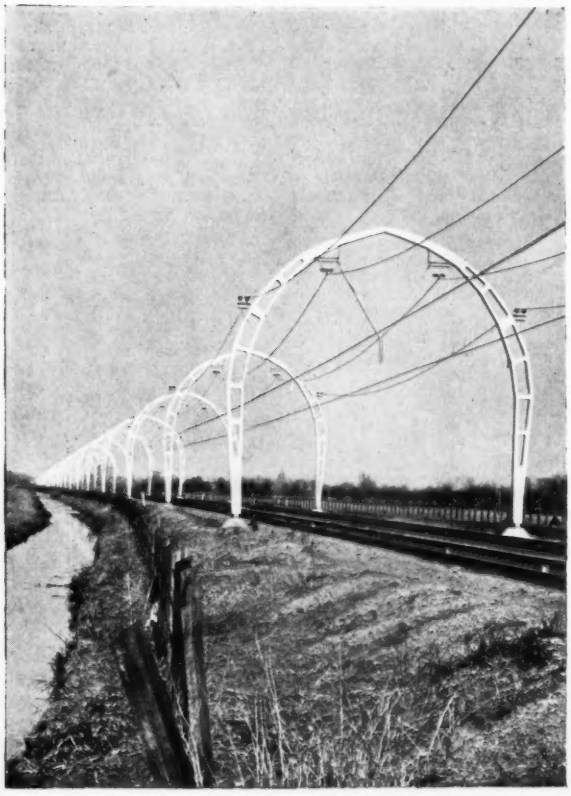
These portals are regarded as æsthetically satisfactory. They are not more expensive than steel portals, and save considerably on steel, which has to be imported; the concrete components are available in the country. A major order for these portals has been placed with the Betondak Company at Arkel for the electrification of the railways in the western part of the province of North Brabant.

In the meantime, the French National Railways have developed the Weinberg system of manufacturing standards of pre-stressed concrete, which are being used on a large scale for the electrification of the Paris-Lyons line. They are mass-produced in special moulds, where the pre-stressing effect can be imparted to them. Impressed by the success of this method, the Netherlands Railways have likewise placed an order for 2,000 portals of pre-stressed concrete with a Dutch consortium.

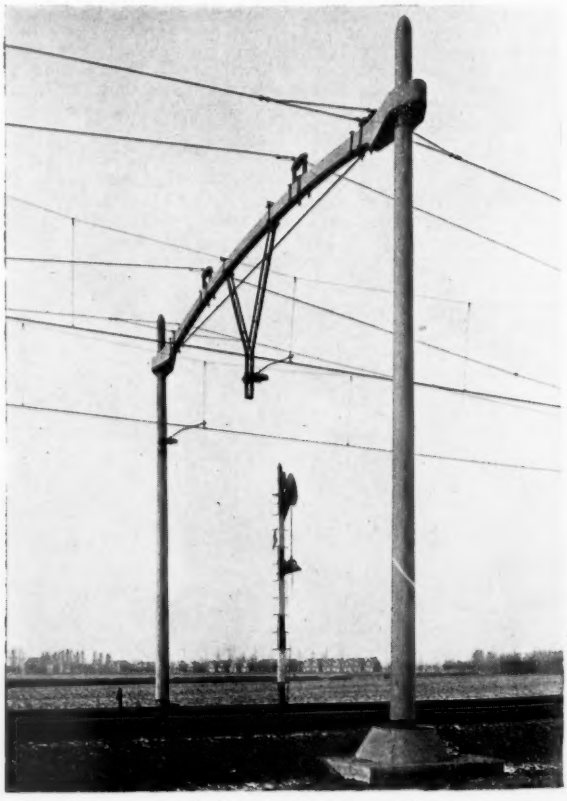
These standards differ slightly from the French prototype insofar as they have diagonal bracings, so that the pre-stressed flanges and the non-prestressed bracings can be cast in the same process, and a more attractive appearance is obtained, which is also of importance for improved sighting distances of signals. The standards have a length of 9·4 metres and a width varying from 37 cm. at the bottom to 16 cm. at the top. Their reinforcement consists of steel wires of 5 mm. dia., with a tensile resistance of about 230,000 lb. per sq. in. Because of the notching of the wires, no end anchors are required.

As with the French process, the standards are manufactured in steel moulds subjected to stressing. The concrete is vibrated, and the hardening process is accelerated by heating, so that one standard a day can be produced in each mould. The total daily output of the factory is eight portals—that is, 16 standards and eight cross-beams. These portals are destined for the lines Amersfoort - Apeldoorn - Deventer - Almelo-Hengelo-Enschede, and Hengelo-Oldenzaal.

The cost of the concrete is about the



Ferro-concrete gantry in the form of a triple-articulation arch



Standard composed of "Arkel" piles of vibrated concrete

same as that of steel portals, but an increase in numbers, as through extending their use to further sections, would result in considerable savings. The amount of steel required for a portal of pre-stressed concrete is only 16 per cent. of that required for a steel portal.

There have also been some developments in the method of constructing the concrete blocks in which the steel or concrete standards are embedded. To begin with, these blocks were cast *in situ*, with the help of wood or steel shutterings, but, due to the difficulties of transport and production supervision, this method was soon abandoned in favour of prefabrication. A special workshop has been installed for a daily output of about 25 concrete foundation blocks of 35-55 cu. ft. volume.

After five or six days the blocks are ready for use. They are placed on a ballast train made up of special wagons connected by longitudinal rails, so that the blocks can be gradually moved along the train towards the crane which is marshalled at one end and can place about ten blocks an hour.

At this rate a fair number of blocks can be handled, even where the work is frequently interrupted by the passage of trains. Another crane serves to erect the standards and crossbeams. This method has shown considerable savings in material and labour and has resulted in improved quality of workmanship as compared with construction *in situ*.

Aluminium Bridge at Sunderland

(*Concluded from page* 505)

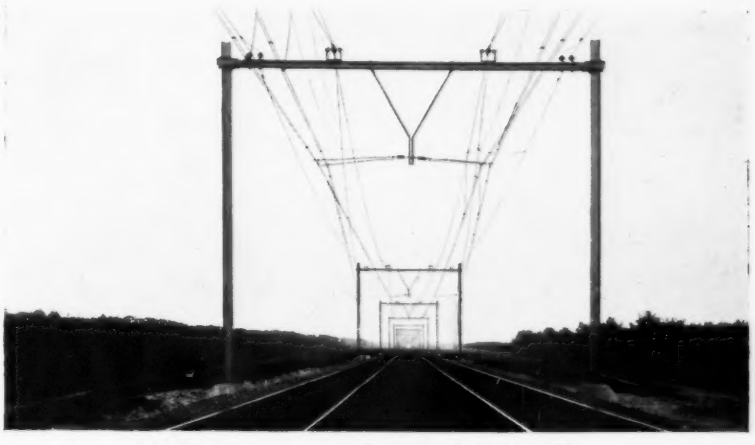
the tail-quadrants of the main girder trusses. When the leaves are lifted their tail-quadrants descend into water-tight compartments in the abutments.

Movement of the leaves is controlled by a master drum through relays beyond which everything is automatic. In the control room is a luminous indicator showing the position of each leaf at any time. When the leaves are lowered, they are locked together by two heavy steel bolts driven by a 3-h.p. motor through gears, and operated by a master-controller through a limit-switch. Traffic lights interlocked with the bridge controls safeguard road and rail traffic.

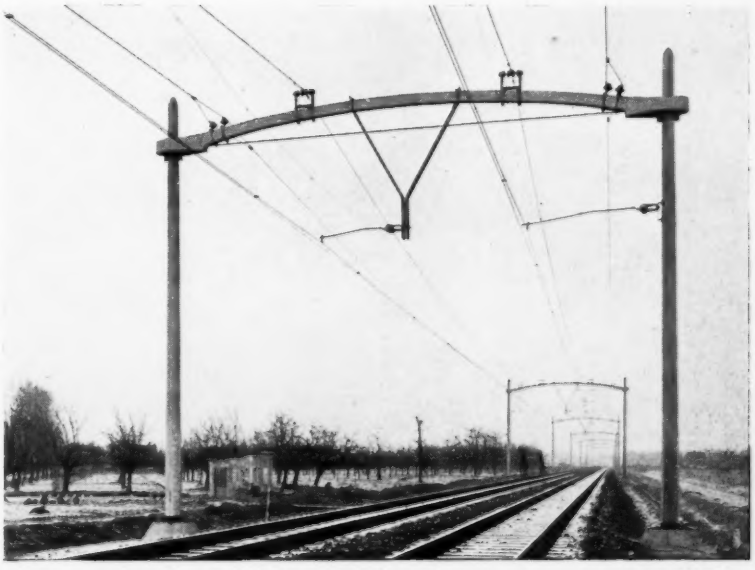
Mr. W. H. S. Tripp, M.I.C.E., M.I.Mech.E., Engineer to the River Wear Commissioners, was responsible to them for the design and execution of the work. The superstructure of the bridge was designed by Mr. F. J. Walker, A.M.I.C.E., A.M.I.Mech.E., Director & General Manager of Head, Wrightson Light Alloy Structures Limited.

KING'S LYNN MOTIVE POWER MUTUAL IMPROVEMENT CLASS.—For the second year running, King's Lynn (Eastern Region) Motive Power Mutual Improvement Class inaugurated its winter session with a film display, when a series of instructional and other films was shown recently before a large audience representative of railway staff from King's Lynn, Cambridge, March, Ely, Bury St. Edmunds and elsewhere, and of local industries and educational authorities. The Pilot Cinema, King's Lynn, was lent for the occasion by Captain L. Beesley, the lessee, and the function was arranged by Mr. E. J. Shaw (Shedmaster, King's Lynn, Eastern Region, British Railways), President of the Mutual Improvement Class, in conjunction with Mr. W. Defty, its Chairman, and Mr. H. J. Wood, Honorary Secretary.

Separate suspension system for either track with steel supports, as used on early electrified sections



Gantry composed of standard steel profiles



Gantry with hollow "Arkel" piles of vibrated concrete and cross-beams of reinforced concrete

Reconstructed Ambulance Coach for Ireland

Special accommodation for helpless invalids travelling on pilgrimage

Interior of the reconstructed ambulance coach

IN Ireland, pilgrims travelling to devotional shrines represent an important element of rail traffic during the summer months. Every Sunday from May to September special trains and buses operate from all parts of the country to Knock, and for the annual Croagh Patrick pilgrimage this year there were nine special trains and 60 long-distance buses.

To enable helpless invalids to travel in the best possible conditions to the shrines, Coras Iompair Eireann has now introduced a special ambulance coach, which is illustrated on this page. Formerly, stretcher cases had to be accommodated in ordinary bogie vans, with the inevitable drawbacks of draughts and lack of toilet facilities. Now, a former Midland Great Western Railway coach, No. 163M, has been converted at the Coras Iompair Eireann works at Inchicore, Dublin, so as to meet the requirements in a modern style.

Self-Contained Ward

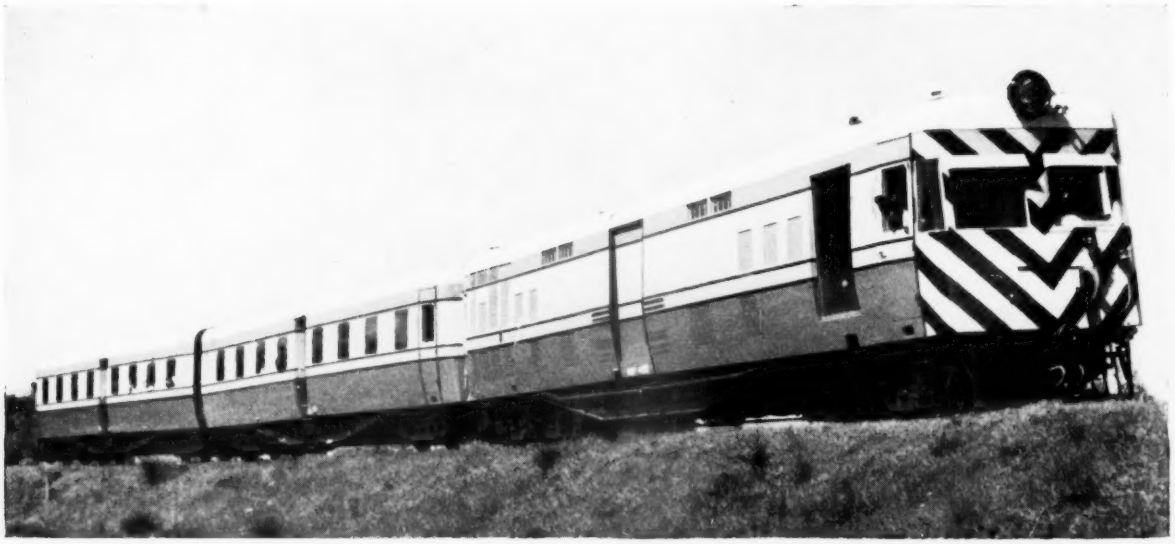
Sixteen invalids, eight men and eight women, are accommodated in the two principal compartments, which are divided by folding doors. Each compartment represents virtually a self-contained "ward," with kitchen and toilet. Accommodation for nurses and ambulance attendents is provided at the centre. Each kitchenette is equipped with tea urns, cooking rings, and table space, and the facilities include hot and cold water, a wash basin, and clothes closet. The interior is finished in cream paint, and there are brown curtains. Bedhead lights are fitted, and there are comfortable armchairs for the attendants.

The Irish Red Cross, the St. John Ambulance Brigade, and the Knights of Malta Ambulance Organisation have expressed their satisfaction with the new coach and will provide attendant service on all its runs.

The C.I.E. road passenger services already have an ambulance bus, accommodating eight stretcher cases, and the stretchers used in the new rail coach are designed to fit this bus, which, for instance, meets the Knock pilgrimage trains at Claremorris.

BRITISH ELECTRIC TRACTION DIVIDEND.—The directors of the British Electric Traction Co. Ltd. have declared interim dividends on account of the financial year ending March 31, 1950, at the rate of 3 per cent., actual, less tax, on the 6 per cent. cumulative participating preference stock, 4 per cent., actual, on the 8 per cent. non-cumulative preferred ordinary stock, and 15 per cent., actual, less income tax, on the deferred ordinary stock. These dividends are the same as before.

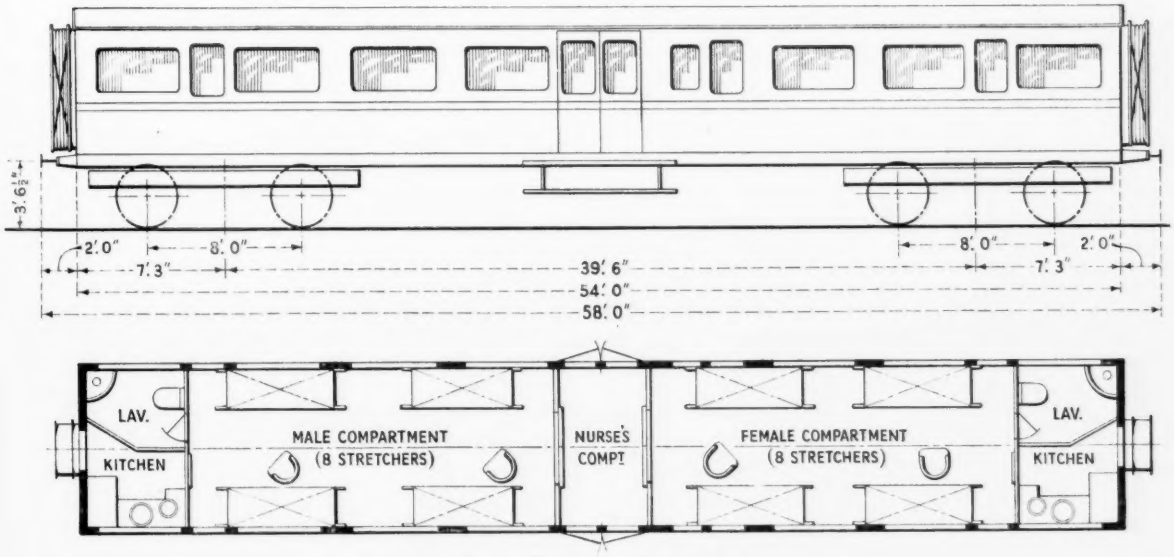
Diesel-Electric Train Sets for Western Australia



Three-unit diesel-electric train, powered by "English Electric" engines and built for country services on the Western Australian Government Railways, on a recent trial run from Perth

Reconstructed Ambulance Coach for Ireland

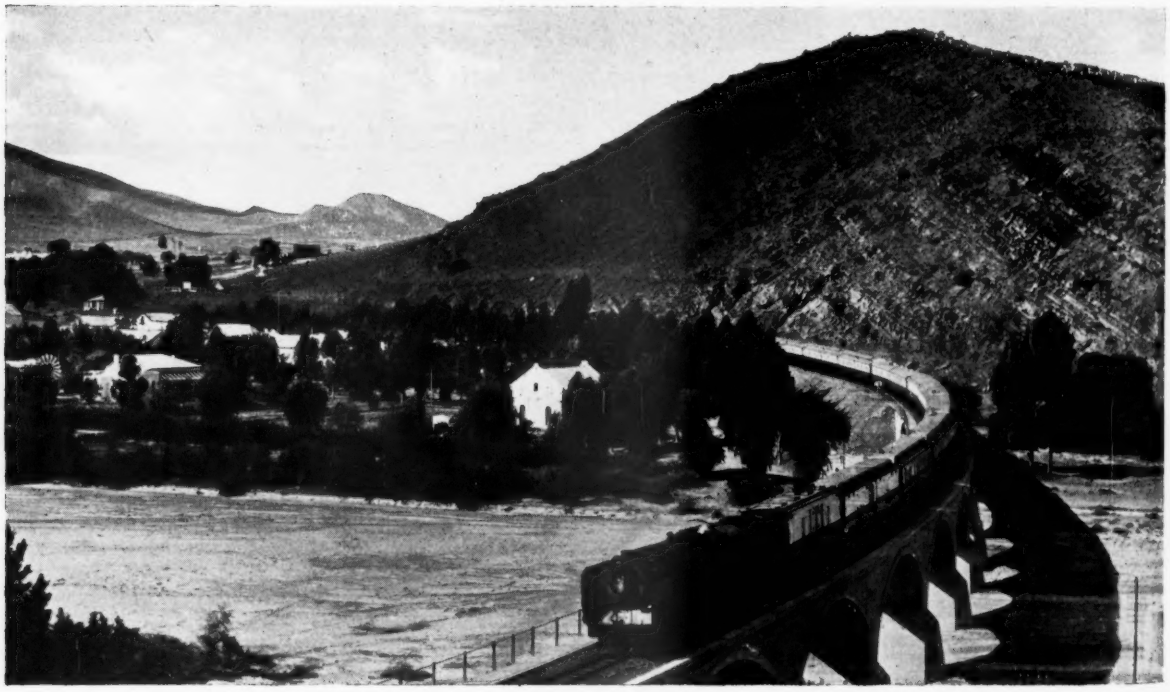
Former Midland Great Western Railway coach converted at Inchicore Works for ambulance duties



Layout and principal dimensions of the reconstructed vehicle

Railway Scenes in Rhodesia and South Africa

Mixed train hauled by 15th Class 4–6–4+4–6–4 Beyer-Garratt locomotive, Rhodesia Railways. Four of this class were ordered in 1940 and proved so satisfactory that a further 60 were ordered and are now being delivered



"Orange Express" hauled by Class "15 E" 4-8-2 locomotive leaving Laingsburg, Cape Province, South African Railways

RAILWAY NEWS SECTION

PERSONAL

Sir Reginald Hill, Chairman, and Sir Robert Letch, Mr. John Donovan, Sir Hector McNeill and Sir Ernest Murrant, Members, of the Docks & Inland Waterways Executive, have this week been visiting Tees-side and the Hartlepools.

The Minister of Transport has appointed Mr. H. J. Thom, Chairman of the Licensing Authority for Public Service Vehicles, and the Licensing Authority for Goods Vehicles for the South Wales Traffic Area, and Regional Transport Commissioner for the South Wales Traffic Area, to act in a similar capacity in the Western Traffic Area during the absence of Sir Arnold Musto, who has been granted leave of absence for three months from October 26, and who has relinquished his appointments during this period.

On account of the necessity for his prolonged absence abroad, Mr. Allan Miller has resigned from the board of the British Electric Traction Co. Ltd. Mr. Kenneth E. Garcke has been appointed a Director to fill the resulting vacancy.

Mr. D. H. Foulds, Managing Director of Carter Paterson & Co. Ltd., has been appointed Manager (Parcels Service) in the South Eastern Division of the Road Haulage Executive.

Dr. I. G. Slater, formerly Director of Operational Research, Admiralty, has been appointed Director of Research & Development of the Aluminium Division of Tube Investments Limited.

We regret to record the death on October 19, at the age of 80, of Mr. William Henry Birch, M.Inst.T., Chairman of Birch Bros. Ltd. He was the son of the late Mr. William Samuel Birch, and after having left Dulwich College he joined the family business, founded in 1832 by his grandfather, Mr. William Birch. He eventually succeeded his father in the Chairmanship of the Atlas & Waterloo Omnibus Association. Since the London Passenger Transport Act, 1933, of which he was an opponent, his company's main activities have been in Bedfordshire and Hertfordshire. He was for many years on the council of the National Federation of Vehicle Trades, by virtue of his coach-building interests. Two of his sons are Mr. John Birch, now Managing Director of Birch Bros. Ltd., and Mr. Raymond Birch, who is Chairman or a Director of a number of B.E.T. Group companies.

The following appointments have recently been made on the General Mitre (former Central Argentine) Railway:—Chief of the Traffic Department: Señor F. Foyatier; Chief of the Stores Department: Señor J. L. M. Ledesma; Chief of the Civil Engineering Department: Señor Ricardo Gnes; Chief of the Mechanical Department: Señor C. E. Thomas.

Dr. H. J. Gough, C.B., M.B.E., M.I.Mech.E., F.R.S., who is President of the Institution of Mechanical Engineers for 1949-50, is Engineer-in-Chief of Lever Bros. & Unilever Ltd. He was educated at University College School and London University, where he obtained an honours degree in the Faculty of Engineering and of which he later received the degree of D.Sc. He served an apprenticeship with Vickers, Sons & Maxim from 1909 to 1913,

Dr. H. J. Gough
President of the Institution of Mechanical Engineers for 1949-50

and served a further year with Vickers Limited as designer-draughtsman on various armaments. At the commencement of 1914 he joined the scientific staff of the Engineering Department, National Physical Laboratory, but in August of that year he joined the Army. He served with the Royal Engineers in France and Belgium throughout the war; he was awarded a commission in the field and commanded a signal section from 1916. After serving with the Army of Occupation at Cologne Bridgehead, he was demobilised in 1919, having been twice mentioned in despatches and having been made an M.B.E. (Military) in 1917. He then rejoined the staff of the National Physical Laboratory, of the Engineering Department of which he was appointed Superintendent in 1930. In 1938 Dr. Gough became the first Director of Scientific Research to the War Office, and, later, to the Ministry of Supply. In 1942 he was appointed Director-General of Scientific Research & Development, Ministry of Supply, and in that year was made a C.B. In September, 1945, he took up his present appointment of Engineer-in-Chief to Lever Bros. & Unilever Ltd. Among his wartime duties had been that of serving as Chief Liaison Officer on Scientific Research & Development with the Allies; and in 1947 the United States Government decorated him with the Medal of Freedom, with Silver Palm. Dr. Gough has published one book and some eighty-four scientific papers on various engineering matters, taking as his principal subject the problem of the failure of metals by fatigue. He was elected to a Fellowship of the Royal Society in 1933. He has been for many years closely associated with the International Association for Testing Materials, on the council of which he is the representative of Great Britain; he was President of the Association during 1937. Dr. Gough has received many awards from engineering institutions, including the Thomas Lowe Gray and T. Bernard Hall Prizes of the Institution of Mechanical Engineers, and the Manby Premium of the Institution of Civil Engineers (1937-38).

Mr. W. Adam, hitherto Assistant Manager, has been appointed to succeed the late Mr. J. Miller as Manager of the Glasgow District Office of the British Thomson-Houston Co. Ltd.

Mr. Andrew B. Boath has been appointed Sales Engineer in the Railway Division of British Timken Limited. He received his training in the Chief Mechanical Engineer's Department of the L.M.S.R., and until recently was Assistant District Motive Power Superintendent, Perth, Scottish Region, British Railways.

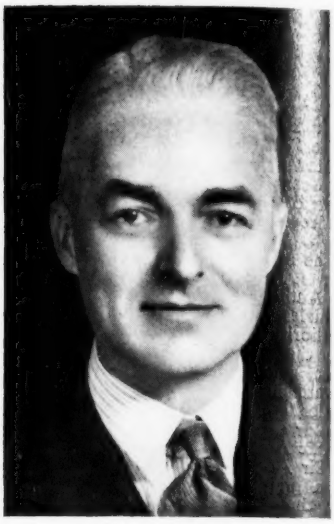
Mr. E. J. M. Matheson, B.Sc. (Eng.), A.C.G.I., A.M.I.C.E., Senior Assistant, Divisional Engineer's Office, Paddington, Western Region, British Railways, has been appointed Assistant District Engineer, Sheffield, Eastern Region. He was educated at St. Paul's School and at the City & Guilds College, London University, where he was the holder of an open Governors' Scholarship. He joined the Great Western Railway in 1933 in the office of the Chief Engineer, and later became an Assistant Resident Engineer on the Western Extension of the London Transport Central Line between Acton and Greenford. In 1938 Mr. Matheson was appointed Resident Engineer on the construction of a quay wall at Weymouth, and on the outbreak of war joined the Royal Engineers. He was mentioned in despatches in 1940, and held various regimental and staff appointments, including that of Deputy Assistant Director of Transportation on Lord Mountbatten's staff in South East Asia, being finally in charge of railway construction in Assam. Returning to the G.W.R. in 1945, he was appointed Permanent Way Assistant, and subsequently Senior Assistant, in the Divisional Engineer's Office at Paddington.

Mr. E. A. W. Turbett

Assistant Chief Mechanical Engineer, Southern Railway, and Southern Region, British Railways, 1942-49

Mr. H. Eccles

Appointed London District Goods Manager, London Midland Region, British Railways



Mr. G. F. Kent

Appointed District Engineer, Liverpool, London Midland Region, British Railways

Mr. E. A. W. Turbett, Assistant Chief Mechanical Engineer, Southern Region, British Railways, who, as recorded in our October 21 issue, retired on September 30, received his training at Crewe Works, L.N.W.R., and subsequently held positions in West Africa and Canada. He joined the Canadian Expeditionary Force at the outbreak of war in 1914 and went to France in 1915. While in France he was seconded to the Royal Engineers for service with the Chief Mechanical Engineer's Department. At the conclusion of hostilities he went to Richborough, C.M.E. Department, and was later appointed Superintendent there. Afterwards he held positions in Spain and France. In 1924 he was appointed Works Manager at the Brighton Works of the Southern Railway. Mr. Turbett was appointed Works Manager, Eastleigh Locomotive Works, in 1928, and Works Manager, Eastleigh Locomotive, Carriage & Wagon Works, in 1929. In 1938 he was made Mechanical Engineer, Eastleigh, and he became Assistant Chief Mechanical Engineer in 1942.

Mr. Holland Y. Blades, one of the three Joint Managing Directors of C. C. Wakefield & Co. Ltd., is retiring from that position at the end of the year, but will remain a Director. Mr. Blades has been chiefly concerned with the production side, and played an important part in building up the company's railway oil and mechanical appliances business. During the recent war he served as a member of the Pool Lubricating Oil Section of the Petroleum Board.

Mr. H. Eccles, M.Inst.T., J.P., Station Working Assistant to Operating Superintendent, London Midland Region, British Railways, who, as recorded in our October 21 issue, has been appointed London District Goods Manager, commenced his railway career at Newton-le-Willows, L.N.W.R., and, after serving at Broadheath and Latchford, was transferred to the District Goods Manager's Office at Warrington in 1914. From 1916 to 1920 his services were lent to the Inland Transport Department of the Ministry of Munitions, and he returned to Warrington at the end of 1920. His subsequent appointments included those of Assistant Commercial Clerk and Chief Accounts Clerk, after which he was appointed Chief Commercial Clerk at Warrington in 1931; he was made Commercial Assistant in 1938, and Assistant District Goods Manager in 1941. In May, 1944, he was transferred to Liverpool as Assistant District Goods Manager, and in August, 1945, was appointed District Goods & Passenger Manager, Stoke. In January, 1947, Mr. Eccles became Station Working Assistant to the Chief Operating Manager, L.M.S.R.

Mr. K. R. Hopkirk, Chief Mechanical Engineer, British Thomson-Houston Co. Ltd., has been elected a Director of that company.

We regret to record the death, at the age of 81, of Mr. David William Rees, Deputy-Chairman, and formerly Managing Director, of the North Central Wagon & Finance Co. Ltd.

Mr. P. Cattermull, Chairman & General Manager of the Tudor Accumulator Co. Ltd., has retired from the latter office, retaining the Chairmanship.

We regret to record the death, as the result of an accident, of Mr. William E. Hodge, Chief Draughtsman of the Railway Division, Technical Department, British Timken Limited.

Mr. W. P. Bradbury, lately Chief Commercial Manager, London Midland Region, British Railways, has resigned from the Chairmanship of the L.M.R. (London) Amateur Musical Society, as he feels that the position should be occupied by a serving officer, and is succeeded by Mr. J. W. Watkins, Operating Superintendent. The position of Vice-Chairman, vacated by Mr. Watkins, is being filled by Mr. A. E. Hammett, Commercial Superintendent. At the recent annual general meeting of the Society, tribute was paid to Mr. Bradbury's interest in the Society's activities.

Mr. Gordon F. Kent, District Engineer, Leeds, London Midland Region, British Railways, who, as recorded in our October 21 issue, has been appointed District Engineer, Liverpool, was educated at Bracondale School, Norwich, and in 1922 became a pupil under Mr. William Marriott on the Midland & Great Northern Joint Railway at Melton Constable. In 1925 Mr. Kent was appointed a draughtsman in the Divisional Engineer's Office, Crewe, L.M.S.R., and in 1930 was transferred to the Chief Engineer's Office at Euston. He was promoted to be Assistant to the District Engineer, Inverness, in 1934, and in 1941 took up a similar appointment at St. Pancras, where for a time he acted as District Engineer. In 1947 Mr. Kent was appointed District Engineer, Barrow-in-Furness, and, later in the same year, District Engineer, Irvine. He became District Engineer, Leeds, early in 1949.

C.N.R. Chairman & President

In the course of a statement in the Canadian House of Commons recently, Mr. Lionel Chevrier, Minister of Transport, said that Mr. R. C. Vaughan, President of the Canadian National Railways since 1941, and Chairman since 1942, had reached the normal retiring age in December, 1948, but had consented to remain in office until such time as a successor was appointed. It was with deep regret that he now announced the retirement of Mr. Vaughan as from January 1, 1950. There was no need for him, the Minister continued, to remind the House of the loyal services performed by Mr. Vaughan, not only to the C.N.R., but also to the whole of Canada. In the summer of 1939 the Government had appointed him Chairman of the Defence Purchasing Board in Ottawa. All Canadians would recall the numerous problems which had had to be solved to prepare industry for the war effort, and the Board had been the first agency on which that responsibility had been placed. The board of the C.N.R. had appointed Mr. Donald Gordon, Deputy Governor of the Bank of Canada, to replace Mr. Vaughan as President, and the Governor-in-Council had approved its selection and had also appointed Mr. Gordon as Chairman, from January 1. Mr. Gordon, he said, was well known to most of the members of the House; his wartime services as Chairman of the Wartime Prices & Trade Board had made his name a household word throughout Canada, and had given him as well an international reputation.

The Christchurch - Invercargill "Limited" Expresses

Timings of the inaugural runs in August

A correspondent has sent us details of the running of the South Island "Limited" express trains introduced by the New Zealand Government Railways between Christchurch and Invercargill on August 1 and described in our issue of August 12.

On the inaugural journeys the trains were composed of six 56 ft. coaches and a 56-ft. brake van—195 tons tare and about 205 tons gross behind the tender. The inaugural up, or northbound, train was worked by "Ja" class 4-8-2 locomotive No. 1248 from Invercargill to Dunedin, "Ja" No. 1250 from Dunedin to Oamaru, "Ab" class 4-6-2 No. 689 from Oamaru to Timaru, and "Ab" No. 807 from Timaru to Christchurch.

The "Ja" class locomotive No. 1250 is the first of the second batch of ten of this class being built at the Hillside Workshops, Dunedin. This second batch of new 4-8-2 locomotives is being equipped wth roller bearings throughout—not only on all axles, but on all side rod bearings as well, except those on the second pair of intermediate coupled wheels.

The following is a summary of the running times and net times between stops on the inaugural up journey:—

Section	Distance Miles	Actual Time M. s.	Net Time Min.	Schedule Time Min.
Invercargill–Gore	... 39·3	56 31	54½	57
Gore–Clinton	... 26·0	39 14	38½	40
Clinton–Balclutha	... 21·0	32 28	31½	33
Balclutha–Milton	... 16·8	24 22	24½	27
Milton–Dunedin	... 35·1	52 53	50½	55
Dunedin–Palmerston	... 39·8	82 52	82½	84
Palmerston–Kartigi	... 9·8	16 41	16½	18
Kartigi–Maheno	... 18·7	35 51	35½	39
Maheno–Oamaru	... 9·4	19 28	19½	19
Oamaru–Timaru	... 51·6	69 28	67½	75
Timaru–Ashburton	... 47·3	74 47	72½	75
Ashburton–Christchurch	52·2	73 45	73¾	75

As will be seen, time was well in hand all the way, and the 367·2 miles were completed in just under 11 hrs. 18 min. inclusive of all stops. The running speeds maintained were not out of the ordinary, but were quite up to the standard to be expected on this important main line. There was a noticeable tendency for the engines to be eased on some sections of the run to avoid too early an arrival at stations.

Gain on Schedule

Probably the best part of the run was the effort of the "Ab" Pacific No. 689 between Oamaru and Timaru in achieving a net gain of nearly 8 min. on the 75-min. booking. A late start of two minutes provided the initial incentive, but with such a light train this was easily won back and Glenavy, 14·0 miles, was passed in 21 min. 33 sec. After a 2¼-mile rise from the Waitaki river bridge through Glenavy had been cleared, ten miles of favourable grades were covered at an average of all but 50 m.p.h. Adverse signals were then sighted and these heralded a long slowing round the back of Studholme Station to by-pass a goods train standing on the main line. This slowing cost at least 2¼ min. The next 20 miles were covered in 23 min. 29 sec., despite the undulating road, and the final 10 miles of this stretch in 11 min. 18 sec. (53 m.p.h.). The maximum speed reached was 57 m.p.h.

An unheralded feature of the new service was the introduction of hostesses travelling on the trains to attend to the needs of passengers, particularly elderly people, invalids, and mothers travelling alone with children. Press reports indicate that this innovation has captured public imagination and should go a long way towards popularising train travel in New Zealand.

Passengers on the inaugural southbound "Limited" included Mr. E. H. Langford (Acting General Manager) and Mr. R. S. Dawson (Acting Transportation Superintendent) and other railway officials. On arrival at Invercargill, Mr. Langford is reported to have said: "The Railways Department wants to remove the tedium from long journeys, and the new "Limited" express schedule is part of a general scheme for brightening the service. It will take some time to work out the general scheme, for there are inevitably a number of teething troubles. However, the Department is looking at the matter with an open mind, and if public patronage is forthcoming the railways will not be found wanting in meeting any reasonable demands. There is naturally a physical limit to what the country can afford in the provision of more costly road services, and when our main line services reach the necessary pitch of efficiency unco-ordinated road services will become redundant and will not be justified, either on the grounds of expense or public convenience."

A feature of the new service is the high standard of punctuality which has been maintained. It is understood that, during the first five weeks, the northbound train has been late into Dunedin only once and late into Christchurch only on four occasions. Similarly, during the same period, the southbound train has been on time at Dunedin on 13 out of the 15 trips.

Recent East Indian Railway Developments

Principal civil and mechanical engineering projects

In his speech as Chairman at the East Indian Railway Officers' Dinner on September 21, Mr. J. A. Bell, a former General Manager, quoted certain passages from a letter recently received by him from the present General Manager of that railway, as reported in our issue of September 30.

Among other news items contained in this letter it was stated that as well as the 22 per cent. of the locomotive stock that was overdue for replacement in 1947, there were also 443 coaches then time-expired out of a total of 2,048 coaching vehicles on the E.I.R. New stock is still only gradually procurable.

Operating

There are now only three classes of passenger accommodation on this system, the former intermediate class having been discontinued. Fifty per cent. of the second-class coaches have been up-graded to first class, and the remaining 50 per cent., together with the former intermediate-class accommodation, comprises the second-class stock. On the suburban services, however, there are now only first- and third-class compartments. Second-class sleeping accommodation is available on 13 through trains, and both second- and third-class seats can be reserved on important long-distance through trains.

To increase the number of full-wagon loads, weekly and bi-weekly special goods trains are being run between Howrah (Calcutta) and up-country centres. During the past 10 months 423 special goods trains have also been run to clear essential imports from Kidderpore docks (Calcutta). Moreover, 56 specials have been put on from the steel centres for the movement of finished steel products.

Engineering

With the object of opening up new coalfields in Surguja and Korea States, three new lines are at present under construction, namely, the Patratu-Damodar branch, the Argada first extension, and the Barwadih-Sarnadih line. Various other lines are being surveyed.

The following new major open-line works, undertaken to increase line capacity, have now been completed:—Regirdering the Malaviya (Dufferin) bridge to carry double-line traffic; quadrupling the Sakhtigar-Sitarampur section, including remodelling works at Ondal; Hardoi-Kahilia doubling, 30 miles in length; doubling the main line from Kanpur (Cawnpore) to Edkil.

Mechanical Engineering

The E.I.R. has been allotted 90 "C.W.D.," 95 "W.P." and 64 "H.P.S." class engines, due to be supplied during 1949-50. All the "C.W.D." engines have arrived in India, but 30 have been loaned to the Bengal-Nagpur Railway until it receives its quota of "W.P." class. Eleven of the "W.P." engines have been delivered to the E.I.R. and are stationed at Gomoh shed for mail-train services; 32 more were expected by the end of August. No "H.P.S." class have yet arrived.

An order for 130 shells for third-class coaches with the Wagon Manufacturing Panel will be finished at Lillooah and Kanchrapara shops; 47 more third class are being built by the Hindustan Aircraft Factory at Bangalore. Also, 86 carriage underframes are being supplied to Kanchrapara and 8 to Lillooah workshops; 350 tank wagons have been received from Canada.

The Sealdah Division of the E.I.R., which formerly constituted the Calcutta area of the late Bengal & Assam Railway, has 346 route-miles of line and 135 stations. At Partition, 218 locomotives, 568 coaches, and 5,838 wagons were taken over from the B.A.R. for working this division, which extends as far as Banpur on the main line, Bongoan and Lalgola Ghat, branch-line termini.

British Industrial Plastics.—An interim report issued by the directors of British Industrial Plastics states that although the financial year to September 30, 1949, covered the normal period of 52 weeks against 53 weeks in 1948, the group turnover has exceeded the record established a year ago. Profits, however, may not equal the record of 1948, owing to the great rise in costs. The directors add that it is too early for any detailed forecast of the effect on the business of the group of the devaluation of sterling, but its influence can hardly be other than favourable, provided conditions remain stable.

Efficient, Adequate, Economical, and Properly Integrated Transport*

Mr. John Benstead's presidential address to the Railway Students' Association

Nationalised transport in Great Britain is now in the autumn of its second year and though unification inside each section of transport must proceed apace, it is also necessary to move more quickly to the accomplishment of the wider purpose and intent of the 1947 Transport Act. Mere organisational changes, and transfers of staff from one Executive to another, in themselves accomplish nothing, unless they produce better services, or more economical working.

The shortage of locomotives and wagons that had to be faced in 1947 has now in many respects been overcome, tremendous efforts have been made to restore the permanent way, and were it not for restrictions in the supply of steel much could have been done to rectify the coaching stock position. Many of the alleged present-day shortcomings are due to such factors as shortage of steel, inferior coal due to export demands, and restrictions on capital expenditure. Side by side with these handicaps a period has been entered where the excess spending power of the people has declined, and apart from travel to and from work and for business purposes, there is a considerable proportion of transport revenue highly susceptible to fluctuations of personal incomes and essential needs. The wartime slogan "Is your journey really necessary" is now applied more realistically by the individual in relation to the margin of cash he has available, and not whether there is the transport available to convey him and his family.

There is a school of thought which assumes that within a comparatively short space of time, by the bringing together of rail and road interests under the Commission, those financial problems associated with them will come to an end. Faith should not be placed in such an easy solution, however, for salvation will rather be found in the efforts of each man in his own particular branch. It is necessary to emphasise the relative position of railways and their ancillary operations, in respect to the whole of the Commission's activities. The working results of the Commission's principal carrying activities for 1948 gave a gross receipts figure of £461,500,000, of which British Railways passenger and freight services contributed £337,315,000, British Railways road haulage £8,667,000, and marine services £10,329,000, or 77 per cent. of the total.

Transport Act Stipulation

Section 3 (1) of the Transport Act stipulates that it shall be the general duty of the Commission so to exercise its powers as to provide, or secure, or promote the provisions of an efficient, adequate, economical and properly integrated system of public inland-transport and port facilities within Great Britain for passengers and goods, with due regard to safety of operation. Each word carries with it a very wide meaning and whether taken singly, or collectively, the test of progress is, and will continue to be, measured by a proper interpretation of them.

Considering the question of efficiency and adequacy, the acid test is not whether arrangements look well on paper, but whether the needs of the travelling public and industry are being met. One of the greatest dangers in an old industry like railways is that, because certain operations and services have been carried on for so many years in the same old way, and tolerated by the users, there is felt to be no need for change. In competition with road services years ago, this lesson was learned at bitter cost. Today, facing great financial problems, if railways are to survive as the principal transport agency of the country, there must be a preparedness to throw overboard ideas and customs which are outdated and there must be a realisation that creation of traffic is only achieved if the means of attraction are provided. Traffic will not come automatically, or out of some belief that it ought to come to the railways. At all costs, the wartime psychology of "there is a war on," has to be avoided.

The word "economical" has had disagreeable associations, because in the minds of the staff its general application has been connected with staff cuts. There are many ways of achieving economy by the prevention of avoidable waste: light, water, paper, fuel, unnecessary services, pilferage, damage, and time. The ratio of expenditure of the Commission's services for 1948 is clearly outlined in the Annual Report, namely:—

	British Railways Services	London Transport Services	
		Road	Rail
	Per cent.	Per cent.	Per cent.
Staff costs	62	68	58
Fuel & power ...	13	11	18
Supplies & services ...	21	17	18
Depreciation ...	4	4	6

It will be seen that labour costs represent 62 per cent. of the expenditure for railways, though, due to the changes which have taken place since January, 1948, involving transfers of staff from one Executive to another, current comparisons are not so easily made. In the first issue of *Transport Statistics* covering the period to January 25, 1948, the total staff employed, including the Commission's head office staff, was shown as 782,295, and at that time the figure covered three main headings:—

British Railways	681,118
London Transport	97,044
Inland Waterways	3,929

In the issue of *Transport Statistics* covering the period to August 14, the total staff employed was 836,028, this increased number being classified as follows:—

Commission's head office staff ...	191
British Railways	635,875
Steamships, Marine & Docks ...	25,950
London Transport	100,675
Road Transport (Freight)	50,105
Inland Waterways	5,224
Hotels & Catering	17,192
Railway Clearing House	662
Common Services :	
Commercial Advertisement ...	154

With the further development of Road Haulage Executive and Road Passenger Executive and as the acquisition of road undertakings proceeds, numbers will swell accordingly. There is nothing static in the transport industry and the fluctuating demands made on its varied services have also repercussive effects on staff requirements, either up or down.

In the period between the two dates given, and as a result of the unification of railways, and the close examination given to staffing requirements, it was to be expected that staff economies would result, and as a matter of fact the number exceeded 20,000. What measure of integration has been found possible in conjunction with the build-up of the Road Transport organisation has also reflected staff economies.

* Abstract of "The Task Ahead," Mr. John Benstead's presidential address to the Railway Students' Association, London School of Economics & Political Science, on October 19

Conveying Imported Foodstuffs by Rail

At a meeting of Hull traders on October 19, Mr. David Blee, Member of the Railway Executive for Commercial Matters, said that a city of 350,000 people deserved a good train service, and it was the aim of the Railway Executive that Hull should have one. They were already providing about the same through facilities between Hull and Kings Cross as before the war, and, apart from the physical limitations of today, the only limit to extensions of such services was the extent to which they were patronised by traders and the public.

Railway facilities of Hull had always been used in the conveyance of large tonnages of imported foodstuffs. They had to cater for dairy produce, meat, fruit, provisions, grain, sugar, and so on, and rail communications by express goods train offered quick services to the West Riding, Midlands, North East England, Scotland, and London. They had been prepared progressively to reinstate former, and introduce new, fast freight services—sometimes in advance of full justification—believing that trade and traffic would follow the services. For "less than car-load traffic" the city was an important centre within the framework of the comprehensive zonal collection and delivery service which was rapidly being extended throughout the country.

They recognised the contribution which the Hull fish trade made to railway revenue with the largest landings of fish of any port in the country. Close study had been given to the provision of suitable rolling stock. Arrangements were in hand for 1,400 converted and new fish vans to be equipped with insulating materials covered with metal-faced plywood which would be used to line the inside of the vans. Sliding doors with flexible gaskets to make the vans airtight would be installed. These changes, they hoped, would contribute further to the maintenance of low temperatures and facilitate cleaning.

During the first six months of this year, the railways conveyed over 5,000,000 tons of foodstuffs, including:—

Commodity	Tonnage
Grain and flour	2,000,000
Potatoes, fruit, and vegetables ...	1,750,000
Confectionery, sugar, and preserves	630,000
Butter, cheese, and lard	250,000
Beer, wines, and spirits	500,000

In the North Eastern Region of British Railways their transport interests were in the safe hands of Mr. C. P. Hopkins, Chief Regional Officer, and Mr. E. W. Arkle, Superintendent, between whom and their team of officers and the trading interests of Hull there existed a close relationship. By such devolution of responsibility for Regional management and central control British Railways was aiming to preserve all the good of the past and add to it the best common standards of policies throughout the Regions in the present and future.

Future of Great Northern Railway (Ireland)

The question of the future of the Great Northern Railway (Ireland) was raised in the Northern Ireland House of Commons on October 18, when Mr. Diamond (Soc. Republican, Falls) asked the Minister of Commerce, Mr. Brian Maginess, if he could state the attitude of his department on the matter of assisting the railway, and if it was the policy of the Ulster Transport Authority to organise a complete road transport service in Northern Ireland to the exclusion of railway services.

The Minister pointed out that, as the railway did not operate wholly within Northern Ireland, consideration of its affairs did not fall exclusively within the scope of his department. The Transport Authority and the railway, however, were empowered to enter into an arrangement, approved by his Ministry, for the acquisition or operation by the Authority on agreed terms of the whole or part of the railway situated in Northern Ireland, and the Authority was at present engaged on a factual investigation of the affairs of the company.

The Minister added that he understood the answer to the second part of Mr. Diamond's question was in the negative.

In reply to a further question by Mr. Diamond concerning shares held in the G.N.R. in Eire, and the possibility that political reasons might cause the Minister to refuse to make any provision for assisting the company at present, Mr. Maginess replied that political considerations did not enter the question. He would hesitate to give an assurance to the House as to the future of the railway, because he never liked to give an assurance without the knowledge that what was assured could be effectively carried out. Until the present investigation had been completed and he was placed in possession of the facts, it would be not only wrong, but impossible, for his Ministry to take any steps.

Belfast & County Down Railway Inquiry

When the hearing by the Northern Ireland Transport Tribunal of the application by the Ulster Transport Authority for the closing down of certain lines of the former Belfast & County Down Railway was resumed on October 17, Mr. John Wilson, who is Technical Director of United Railways of Havana and a former General Manager of the Entre Rios and Argentine North Eastern Railways, was called as an expert witness for Down County Council and other objectors to the Transport Authority's proposal. He expressed the opinion that the use of diesel railcars would be a profitable alternative to the closing of the sections concerned.

To restore rail passenger traffic, he said, the service must be increased, and the only solution was the adoption of diesel railcars, which would also show a considerable reduction in expenses. He recommended steam locomotives for goods traffic at present, and was against the use of a railcar with odd wagons; one wagon might be permissible, but if the freight service grew, a diesel locomotive or a diesel-operated parcels van could be introduced.

Questioned concerning the opinion of eminent authorities that the railway was not a paying proposition, Mr. Wilson said that those opinions had been given before road and rail traffic had been taken over by the Transport Authority. His plan was that traffic should come from the roads to the railways without coercion. It would be coercion to close down the railway and compel everyone to travel by bus.

Mr. C. A. Nicholson, K.C., for the Ulster Transport Authority, referred to the diesel railcar scheme of frequent services suggested by Mr. Wilson, and said that railway engineers took the view that it would not be practical in working, because it left a very narrow margin between trains.

Mr. J. M. Andrews, former Prime Minister of Northern Ireland, who appeared as a witness for Down County Council, said he felt that the Transport Authority had not been out to help develop traffic on the County Down Railway, but on the contrary, had judged the matter very hurriedly and made its decision within months of taking control. Those had been winter months, and did not represent a good test; the railway had always shown much better returns during the summer.

Mr. John Shearer, Chief Organiser in Ireland of the National Union of Railwaymen, said that in the present unsettled international conditions an alternative should be found to the closing of the line. He said that the union estimated that about 300 men would be affected by the closing of the line, and considered that the number who would not be absorbed would be not less than 100. He agreed with Mr. C. Stewart, counsel for the union, that the union's argument was that these men must be absorbed or be compensated. Cross-examined by Mr. Nicholson, he agreed that the Transport Authority would do everything possible to absorb the men who might lose their employment.

Toton Up Yard Modernisation Scheme, L.M.R.

A further stage in the Toton Up Yard reconstruction scheme of the London Midland Region has now been reached with the bringing into use of the first section incorporating railbrake and power-point operation. This includes five new arrival lines each capable of holding engine brake van and 75 wagons, hump engine run-round siding, single-line hump, power-operated railbrake controlled from a control tower, nine sorting sidings of an aggregate capacity of 835 wagons, position-light hump signalling and throughout route setting controlled from a new hump room, electric lighting, loud speakers, and staff accommodation and amenities.

This scheme, which was prepared by the former L.M.S.R., will eventually include the provision of four railbrakes and 37 sorting sidings among other essential facilities, but as the existing yard, which possesses many inadequate features, could not be completely closed down to enable it to be remodelled, enlarged, and modernised, it was necessary to plan the reconstruction work in stages.

Work of excavation commenced in April, 1948, since when several preliminary stages have been completed and brought into use.* These include two new junctions with the running lines, one at the entrance to the new yard and another at the exit, and a new all-brick signal box at each of the two new junctions *in lieu* of a signal box which existed nearby. A new group of sidings for the execution of light repairs to wagons, and a subsidiary marshalling group, have already been brought into use, as the respective sites hitherto occupied were required for other major purposes. Track laid to date amounts to 12½ miles and 92 turnouts of a projected total of 27½ miles and 200 turnouts; 4½ miles of old sidings have been removed.

Now that the first mechanised stage has been reached, another portion of the old yard has been given up, and the track is being recovered to enable a further component part of the new layout with a railbrake to be provided. The reconstruction work commenced on the outer side of the yard, and thus successive stages towards the main line will be carried out until the whole of the old yard is done away with and the complete new layout finished, which is expected to be not later than the autumn of 1950. Meantime, part of the new and part of the old yard will be in use at the same time, which has necessitated considerable detailed planning of traffic operations. Although assistance is being given by the temporary diversion of some of the traffic to other yards, a considerable volume of traffic, which consists mainly of loaded coal, will continue to be dealt with through the up yard.

* Previous articles on the mechanisation of Toton Up Yard, L.M.R., have appeared in our issues of January 30, April 9, and July 9, 1948, and on March 18, 1949

New Special Vehicles of the Swiss Federal Railways

In 1948, the Swiss Federal Railways converted an old restaurant car into a "brake instruction car" which is being used for the training of locomotive men, especially at minor sheds where the permanent installation of training equipment would be too costly. The car is divided into two large compartments, one used as a lecture room and the other containing the model brake installations (Drolshammer brake), including the brake blocks, manometers, dusts, and valves.

Compressed-air tanks are provided to imitate brake operations for trains with 50, 100, and 150 axles, respectively. As the valves are operated, the trainees can observe the reaction of the various parts of the equipment, including the Stopex and Tustop devices for regulating the braking efficiency. The effect of emergency braking can also be studied.

Another special vehicle of a new design, used by the Federal Railways, is an inspection car for overhead contact lines which checks periodically the correct position of the overhead wire, both vertically and horizontally. It can run at a maximum speed of 92 m.p.h. and can be placed either in front or behind the locomotive. The car, including the elevated observation cabin, is constructed of electrically welded steel plates and profiles.

Both the vertical and horizontal movements of a pantograph mounted on the car are recorded on a continuous diagram which reveals at a glance any undue deviations from the normal position. There are also optical instruments for the observation of the overhead line. The car is equipped with a recording instrument which registers oscillations of the vehicle due to irregularities in the permanent way.

PROFIT ON IRISH AIR LINES.—Aer Lingus made a profit of about £88,000 during the first six months of the year ended on September 30. This compares with a loss of £18,500 in the corresponding period of the previous financial year. Both B.E.A. and B.O.A.C. have a financial interest in Aer Lingus.

Main-Line Electric Locomotives for Brazil

Inspection of 3,000-h.p., 3,000-volt d.c. locomotives under construction at the works of the Vulcan Foundry Limited

The English Electric Export & Trading Co. Ltd., which is executing a contract for the electrification of 64 km. (39.76 miles) of main line of the Estrado de Ferro Santos a Jundiai, recently invited the Brazilian Ambassador and a number of other distinguished guests to inspect the first of fifteen 3,000-h.p. 3,000-volt d.c. main-line electric locomotives at the works of the Vulcan Foundry Limited, Newton-le-Willows.

Mr. F. S. Whalley, Chairman of the Vulcan Foundry Limited, in a brief speech welcomed the guests and spoke of the value of co-operation between the various organisations which had resulted in the building of the electric locomotive which had been inspected that day.

Mr. L. H. Short, Director, The English Electric Export & Trading Co. Ltd., thanked Mr. Whalley and said that the locomotives were only part of a big electrification scheme, and that they were in touch with the Brazilian Government in connection with further contracts. He paid tribute to the Vulcan Foundry Limited which were manufacturing the mechanical portion of the locomotives, and said that The English Electric Export & Trading Co. Ltd. was responsible for the locomotives, provision of overhead line equipment, which is being supplied in association with British Insulated Callenders Cables Limited, for the sub-station equipment and for the sub-stations which are being built locally for the company by the Servix Engenharia Limited. The contract also includes the supply of three 3-coach trains for the initial section of the suburban electrification.

Dr. Camara Souza, Commercial Counsellor, Brazilian Embassy, in replying, touched briefly on his country's requirements, which were transport, particularly, machinery of all kinds, and immigration. He paid tribute to the scientific and technical ability of British engineers, and to the sterling qualities of the British workman, and all those who had contributed to the construction of what he described as the largest and most powerful electric locomotive ever to be built in Great Britain. The complete electrification in Brazil is being carried out to the requirements of the Administrator of the Railway, Dr. Feio.

The following were among those who accepted invitations to be present:—

Guests and Officials

Senor Jaime Alba, Commercial Attache, Spanish Embassy; Messrs. H. J. Barton, Consulting Engineer, Merz & McLellan; R. F. Black, Mechanical Engineer, New Zealand Railways; R. C. Bond, Chief Officer (Locomotive Construction & Maintenance), Railway Executive; C. M. Cook, Chief Electrical Engineer, Railway Executive; E. S. Cox, Executive Officer (Design), Railway Executive; Lt.-General Sir Kenneth Crawford, Controller of Supplies (Munitions), Ministry of Supply; Messrs. A. E. Fielding, Advisory Engineer, New South Wales Government; G. A. Fitch, Export Credits Guarantee Department; Ranald J. Harvey, Consulting Engineer to New Zealand Government; C. O. Haven, Latin-American Adviser, Foreign Office; H. G. Ivatt, Chief Mechanical Engineer, London Midland Region, British Railways; E. Hediyat, Chief Administrator, Iranian State Railways; F. B. Kitchin, Director, British Insulated Callender's Construction Co. Ltd.

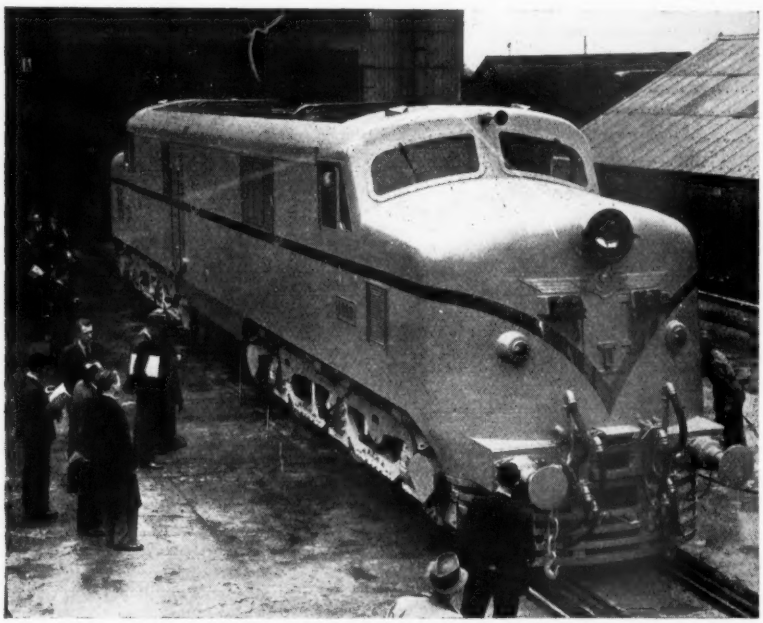
The Hon. W. H. Kitson, Agent General, Western Australia; Messrs. J. Kostrzewa, Head of Polish Purchasing Mission; F. Lydall, Consultant to Merz & McLellan; W. H. W. Maass, Advisory Engineer, South African Railways; C. R. Mayo, Consulting Engineer, Fox & Mayo; Dr. J. L. Miller, Chief Engineer, British Insulated Callender's Cables Limited; Dr. Bayma de Moraes, Manager in Rio de Janeiro, Parson & Crosland Limited; Mr. S. M. Nazir, Commercial Secretary to High Commissioner for Pakistan; Lt.-Colonel Harold Rudgard, Chief Officer (Motive Power), Railway Executive; Senor Egydio da Camara Souza, Commercial Counsellor, Brazilian Embassy; Messrs. R. J. W. Stacey, Assistant Secretary, Board of Trade; A. M. Stewart, Inspecting Engineer, South Australian Government; H. H. Swift, Electrical Engineer, North Eastern Region, British Railways; Julian S. Tritton, Consulting Engineer, Reindel Palmer & Tritton; A. E. Turner, Turner & Coates Limited; J. W. Vaughan, Director, Locomotive Manufacturers' Association; W. L. Watson, Crown Agents for the Colonies; N. L. Weatherall, Secretary, Antofagasta (Chili) & Bolivia Railway Co. Ltd.; Colin White, Consulting Engineer, Sir Bruce White, Wolfe Barry & Partners.

The Vulcan Foundry Limited

Mr. F. C. Whalley, Chairman; Brigadier James Storar, Vice-Chairman; Major-General A. E. Davidson, Director; Mr. B. P. Greenwood, Director; Colonel G. Collingwood, Managing Director; Mr. G. Rigby, General Manager.

The English Electric Export & Trading Co. Ltd.

Sir George H. Nelson, Chairman; Messrs. L. H. Short, Director; E. B. Banks, Director; A. Sheffield, Director; L. J. Sargeant, Director; P. L. Mardis, S. Potter, D. Betts, R. J. B. Chatterton, A. A. Young, G. W. Barlow, G. E. Smith, and J. H. M. Sykes.



The first of fifteen 3,000-h.p. electric locomotives designed by The English Electric Co. Ltd. for the Estrada de Ferro Santos a Jundiai

Sir Cyril Hurcomb's Visit to the West of England

On October 24 and 25, Sir Cyril Hurcomb, Chairman, British Transport Commission, made a tour of inspection in the West of England. The programme for the first day provided for arrival at Bristol (Temple Meads) at 11.23 a.m. and a visit to the East Signalbox and Goods Shed. A luncheon was held at the Grand Hotel, Bristol, and followed by departure for Exeter, where the Western National Omnibus Co. Ltd. Queen Street offices were inspected. On October 25, a visit was made to Plymouth North Road. Millbay, and Friary stations and Millbay docks, as well as the Western National garage at Laira Bridge Road. After a luncheon at Plymouth, inspection was made of the properties of Western Enterprises Limited at Looe.

Speaking at Bristol, Sir Cyril Hurcomb said no business man was likely to overlook the importance of the railways as carriers of freight. Last year, the gross receipts of the railways from freight, parcels and mails had been about £220,000,000, including payments for services of collection and delivery by road. But railway receipts from passengers were very important also, and, if they were not sustained, freight traffic had to contribute more towards the joint expenditure.

Excluding the earnings of taxis, or vehicles carrying less than eight persons, £340,000,000 would not be very wide of the mark as an estimate of the gross receipts of public passenger transport in 1948. This figure included rail and road receipts and the share of the British Transport Commission was well over 60 per cent., or 80 per cent. if municipal services were excluded and regular services only were taken into account.

The total was made up as follows:—

	£ million
Railways (including London tubes) ...	137
London Transport road services (bus, tram & trolley vehicles)	43
Provincial and Scottish road services wholly owned by British Transport Commission	35
	215
Municipal services	55
Large road operators	57
Smaller road operators	15
Total gross receipts	342

If railways were excluded, the total for the country was £205,000,000 from public road passenger services, out of which the Commission received £78,000,000.

Staff & Labour Matters

Railway Shopmen

After the decision, last week, of the employees' side of the Railway Shopmen's National Council to apply for an immediate and substantial pay increase, the Railway Executive received a letter dated October 19, signed jointly by Mr. J. B. Figgins, General Secretary, N.U.R., and Mr. Gavin Martin, General Secretary of the Confederation of Engineering & Shipbuilding Unions, intimating that the trade union side of the council had unanimously decided to press for such a claim for all grades of workshop staff, in addition to the claim for enhanced payment for Saturday work.

The procedure for preferring a claim against the Railway Executive provides that it should first be submitted to the employees' side. If the employees' side approves, the claim is sent forward over the signatures of the joint secretaries and placed on the agenda of a full meeting of the Railway Shopmen's National Council, comprising representatives of the unions and the railway management. If a claim submitted to the employees' side of the Council is not approved, no authority is given to the joint secretaries to put it before the Railway Executive.

It is understood that difficulty was experienced by the employees in reaching agreement on the present claim because the Confederation of Shipbuilding & Engineering Unions is seeking a £1 a week increase for all its members, while the N.U.R. claim which was discussed at the Board of Conciliation set up by the Minister of Labour was for an all-round increase of 10s. a week, and more recently the N.U.R. has declared for a minimum of £5 a week. This difficulty has been overcome so far as the shopmen are concerned by not quoting a specific amount in submitting the claim.

The employees asked for the claim to be discussed at the meeting of the council arranged to take place on October 26 to consider a number of matters relating to shopmen, and the Railway Executive agreed to do so.

When the N.U.R. claim for an increase of 10s. a week for shopmen was discussed at the Board of Conciliation last August, the Board recommended that the proper course was to refer this matter, and also the claim for enhanced payment for Saturday working, back to the Railway Shopmen's Council to be dealt with under the constitutional procedure. The discussion of the two claims at the full meeting of the council on October 26 was, therefore, in accordance with the recommendations.

Engineering employers have asked the Confederation of Shipbuilding & Engineering Unions to reconsider its claim for a general increase of £1 a week for all its members. It is estimated that to concede the claim would cost at least £100,000,000 a year. The unions proposed that the cost of the claim should be met out of profits and not by raising the price of products. The Engineering & Allied Employers' National Federation in a letter to the Confederation stated: "It is impossible to reconcile the claim with national policy, equity, or the interests of the nation." In an official statement on October 21 the Federation gave the following reasons for its request:—

1. The policy of wages restraint advocated by the Government in the White Paper on personal incomes, costs, and prices, and supported by the central organisations of employers and workers, remains unchanged.

2. The purpose of devaluation (to reduce the price of exports) would be defeated by an increase in production costs.

3. The balance of profits remaining after heavy taxation and necessary depreciation would in no way meet the claim.

The statement continued: "The alternative to the White Paper policy is an increase in the costs of production and selling prices, with consequent hardship to the home consumer, damage to the export trade, and nullification of the effect of the change in exchange rates. The present crisis has shown that the imperative need is to produce more and more cheaply. Far from taking steps that will imperil this objective, it is more than ever necessary to consider plans for increasing output without raising costs.

"The Federation assumes that the unions would not desire to encroach on the large proportion of industrial profits which are already taken in support of State revenue to finance social and other services. In any case the Federation is not prepared to concede that the highly-taxed income resulting from the savings of millions of small industrial shareholders should be expropriated in favour of an inflationary wage movement."

The claim for the £1 a week increase in the engineering industry was sponsored by the Amalgamated Engineering Union. When it was discussed by the Confederation of Shipbuilding & Engineering Unions, 21 of the unions affiliated to the Confederation voted to defer the application, 12 supported it, and three abstained from voting. On a card vote, there was a majority in favour of the proposal, 557,900 against 490,397. The A.E.U. is the biggest of the 37 unions affiliated to the Confederation, a factor which played a big part in carrying the motion.

The Minister of Labour announced on October 19 that the interim index of retail prices went up on September 13 to 112 as compared with 111 on August 16. There are a number of workers in outside industries, such as iron and steel, whose wages vary with the cost of living. The iron and steel workers agreement provides for an increase of 1·2d. a shift for adults for each point rise in the index. Building workers and operatives in the boot and shoe industry also qualify for an increase. The General Council of the T.U.C. has the problem of these sliding-scale adjustments under discussion as part of its deliberations on the results of devaluation.

The Special Economic Committee of the T.U.C. has been considering issues such as:—A national minimum wage; a longer working week; abandonment of cost-of-living sliding-scale wage agreements; the Chancellor's suggestion that maintenance of wage differentials cannot be justified as arguments for increases of pay; and how to counteract the effect of devaluation on the cost of living.

The October 19 issue of the *Journal of the Iron & Steel Trades Confederation* contained an article condemning the suggestions for a national minimum wage, that wage differentials should be abandoned, and that sliding scale agreements should not be applied. The *Journal* stated: "The trade unions must be allowed to solve these problems in their own way. For anyone to attempt to interfere with an intricate wages structure built out of years of experience and hard work is inviting trouble. Maintenance of wage differentials based on the relative degrees of skill required are an essential part of the wages structure of many important industries. A wages policy which did not take account of this would be foredoomed to failure and would invite repercussions. To tamper with cost-of-living agreements would also be to tread on extremely dangerous ground. Agreements in the iron and steel industry are one of the most potent factors in maintaining the peaceful industrial relations for which the industry has now become a byword and without which the record-breaking outputs would not have been achieved."

The view expressed by the Confederation of Shipbuilding & Engineering Unions when in June, 1949, the Railway Executive offered to improve the rates of pay of certain lower-paid railway staff, including railway shopmen, was that, after long and complicated negotiations, agreed rates of pay for railway shopmen had been fixed recently. They could not accept any responsibility for an alteration in the rates of lower grades only, and a lessening of the differentials would be regarded as a serious matter.

The A.S.L.E. & F. told the Conciliation Board at the time consideration was being given to the rates of pay and conditions of service of railway workers that: "We have made it abundantly clear throughout negotiations that any consideration given to the wages question must have full regard to the important principle of relativity. In this connection we would refer particularly to the conclusions reached by the court of inquiry, published in the form of a White Paper to Parliament on June 24, 1947, which were accepted by all the parties concerned, also to the terms of the agreement reached in February, 1948, with the Railways Staff Conference on rates of pay for conciliation staff. We therefore claim that the principle of relativity must not be disturbed."

Questions in Parliament

Railway Financial Losses

Mr. H. D. Hughes (Wolverhampton West—Lab.) on October 24 asked the Minister of Transport what was the overall loss incurred on British Railways in 1948, including operating costs, central administration and capital charges; and what was the comparative figure for 1947.

Mr. Alfred Barnes (Minister of Transport): The net traffic receipts of British Railways in 1948, together with the net yield of other parts of the Commission's undertaking, were insufficient to meet central charges, including interest and amortisation of capital, by about £4·7 million. The Act requires that the Commission's finances shall be treated as a whole, and not that the overhead charges should be precisely allocated between the different businesses. The contribution of the railways to the integrated finances in 1948 must, however, be regarded as seriously deficient, and an estimate has already been published putting the deficiency at between £8 million and £9 million. For reasons explained in paragraph 84 of the Commission's Report, no valid comparison of net results with those for 1947 is possible.

WINTER CLASSES FOR LONDON MIDLAND REGION STAFF.—Signalmen, porters, stationmasters, platelayers, booking clerks, goods clerks, and inspectors are among the 5,076 members of the London Midland Region of British Railways who have enrolled for free evening and correspondence classes and lectures on railway subjects, organised by the London Midland Region during the coming winter. Staff attending these classes are not required to pay fees or purchase textbooks. Free travel is also provided between residential stations and the instructional centre.

Notes and News

Engineer Required.—An engineer, with railway experience, is required by anti-friction bearing manufacturers, as assistant to the head of the railway engineering division. See Official Notices on page 519.

Steel Rails and Fastenings Required by the Queensland Railways.—Tenders are invited by the Queensland Railways for steel rails and fastenings. See Official Notices on page 519.

Pressed-Steel Sleepers with Fastenings for the Queensland Railways.—Tenders are invited for 80,000 pressed-steel sleepers with fastenings, required by the Queensland Railways. See Official Notices on page 519.

Assistant Electrical Engineer Required.—Applications are invited for an assistant electrical engineer required by the Rhodesia Railways, for the electrical section of the mechanical department. See Official Notices on page 519.

York Locomotive Society.—The York Locomotive Society, which has entered its fourth year with a membership approaching 300, opened its winter session on October 13, with an address on "Railway Motive Power," by Mr. T. Matthewson-Dick, District Motive Power Superintendent, York, British Railways, North Eastern Region. The Chairman was Mr. F. H. Petty, Motive Power Superintendent, North Eastern Region, and President of the Society. Among the meetings planned for the present session are addresses by Mr. E. Iley, who recently spent some time on the railways of South America, Mr. S. E. Roberts, of the Westinghouse Brake & Signal Co. Ltd., and Messrs. H. Wright and A. Cameron, drivers on British Railways.

Engineering Manager Required.—A fully qualified technical engineering manager, able to organise and control the building and repairing of all steel railway rolling stock, mine cars, quarry skips and general engineering activities, is required by a North Midlands firm. See Official Notices on page 519.

Canadian National Railways Board.—The Canadian Minister of Transport informed a questioner in the Canadian House of Commons that the appointment of Mr. Donald Gordon as President & Chairman of the Canadian National Railways would not involve reorganisation or a new board of directors.

The Omnibus Society in Portland Place.—Arrangements have been concluded whereby the meetings of the Omnibus Society this Session are being held at the headquarters of the Institute of Transport in Portland Place. The first meeting took place on Friday last, under the Chairmanship of Mr. E. N. Osborn, and the members of the Omnibus Society were welcomed by Mr. D. R. Lamb, Past-President of the Institute of Transport, in the absence abroad of the President. Mr. Lamb afterwards addressed the members in an interesting and informal way, outlining the history of the headquarters building, the Omnibus Society (which was established exactly 20 years ago), and the Institute of Transport. He emphasised the educational needs of all branches of the transport industry, and said that it was increasingly desirable that transport problems should be discussed dispassionately and independently, particularly in view of nationalisation.

Railway Students' Association.—A paper on "Philosophy and the Human Element in relation to Railway Work" will be read before the Railway Students' Association, London School of Economics & Political Science, on November 9, by Mr. J. C. L. Train, Member, Railway Executive. The meeting will commence at 6 p.m.

Southern Region Lecture & Debating Society.—On Wednesday, November 9, Mr. J. P. Maitland, Running Shed Superintendent, Nine Elms, Southern Region, will read a paper entitled "Locomotive Exchanges," to British Railways, Southern Region, Lecture & Debating Society. The meeting will be held at the Chapter House, St. Thomas' Street, London Bridge, at 5.45 p.m.

London Midland Region (London) Orchestra.—A concert was held in the former shareholders' meeting room, Euston Station, on October 21, with the London Midland Region (London) Orchestra, leader George Elmitt, under its honorary conductor John Grindley. The soloists were Joyce Newton, contralto, and Percival Garratt, pianoforte, and the programme included a selection of orchestral works by Rimsky Korsakov, Eric Coates, Ponchielli, Gounod, and John Ansell. Proceeds of the concert went to the Derby Railway Servants' Orphanage.

Twenty-Four Hour Strike in Luxembourg.—An agency report states that normal working was resumed on October 12 after a 24-hour strike staged by railway workers in the Grand Duchy of Luxembourg. The workers struck as a protest against the Government's refusal to meet their claims for a 5 per cent. wage increase. All stations throughout Luxembourg were closed as a result of the stoppage. Urgent freight, including post, newspapers, and perishable foodstuffs, were carried by hurriedly-engaged haulage contractors. International trains which normally pass through the Grand Duchy were diverted.

Dowsett Holdings Limited.—In his statement circulated with the report and accounts of Dowsett Holdings Limited for the year ended March 31, the Chairman, Mr. W. Lionel Fraser, said that work in progress showed an increase for the year of £160,335. Including £119,900 repayable over a period of two years under hire-purchase arrangements, creditors had increased by £275,328. This reflected not only additional work in progress, but the financing of their Australian business. It was clear that they needed additional permanent capital, and at a propitious moment proposals to meet this situation would be made. The combined trading profit was £193,719 (£180,176 the previous year). The net consolidated profit was £50,238 (£51,865), the decrease being due to increased deduction of initial allowances. After adding the amount brought forward from the previous year and deducting the preference dividend of

British Railways Prize Stand at Hebburn

The British Railways stand, designed in the Public Relations & Publicity Office, North Eastern Region, which was presented with an award of merit at the Hebburn Industrial Exhibition held in September

OFFICIAL NOTICES

None of the vacancies on this page relates to a man between the ages of 18 and 50, inclusive, or a woman between the ages of 18 and 40, inclusive, unless he, or she, is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

ENGINEER, with railway experience, required by anti-friction bearing manufacturers, as Assistant to the Head of the Railway Engineering Division. Experience of railway locomotive and/or carriage design necessary, and applicants should be capable of checking drawings and taking responsibility. Salary according to qualifications. Apply, giving details of experience, to Box 504, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

Rhodesia Railways

APPLICATIONS are invited for Assistant Mechanical Officers for the Mechanical Department for duties in workshops or on the running side in charge of locomotive, carriage and wagon maintenance. Applicants must have served a recognised pupilage or apprenticeship on a Railway and subsequently had drawing office, workshop, progress planning or running maintenance experience in a supervisory capacity. The minimum qualification is the standard required for admission by examination as Associate Member of the Institution of Mechanical Engineers or accepted equivalent. Age about 28 to 35 years. Salary scale £640, rising by annual increments of £30 to £1,000 per annum, plus variable cost-of-living allowance now applicable at 22 per cent. on basic salary. The commencing salary may be higher than the minimum, dependent on age, qualifications and experience. Applications, together with full particulars of training, subsequent experience, education and technical qualifications, etc., to be forwarded to the CHIEF MECHANICAL ENGINEER, RHODESIA RAILWAYS, P.O. Box 703, Bulawayo, S. Rhodesia.

TECHNICAL Engineering Manager, fully qualified, required for North Midlands firm, able to organise and control the building and repairing of all steel railway rolling stock, mine cars, quarry skips and general engineering activities. First class references will be required. Post offers excellent prospects. Write fully, age, qualifications, positions held, salary required.—Box 626, WALTER SKINNER LIMITED, 20, Copthall Avenue, London, E.C.2.

Rhodesia Railways

APPLICATIONS are invited for an Assistant Electrical Engineer for the Electrical Section of the Mechanical Department for duties in electrical distribution, workshops plant, building installations and railway train lighting. Applicants must have served a recognised pupilage or apprenticeship and subsequently had experience as an Electrical Engineer. The minimum qualification is the standard required for admission by examination as Associate Member of the Institution of Electrical Engineers or accepted equivalent. Age about 28 to 35 years. Salary scale £640 rising by annual increments of £30 to £1,000 per annum plus variable cost-of-living allowance now applicable at 22 per cent. on basic salary. The commencing salary may be higher than the minimum, dependent on age, qualifications and experience. Applications, together with full particulars of training, subsequent experience, education and technical qualifications, etc., to be forwarded to THE CHIEF MECHANICAL ENGINEER, RHODESIA RAILWAYS, P.O. Box 703, Bulawayo, Southern Rhodesia.

CHIEF ESTIMATOR required, fully experienced in Rolling Stock Construction; permanent post for suitable applicant. Superannuation scheme operating. Apply in writing stating age, experience and salary required to CRAVENS RAILWAY CARRIAGE & WAGON CO. LTD., Darnall, Sheffield, 9.

BRITISH RAILWAYS (Western Region) require for London Office:—Leading Draughtsmen for design of reinforced concrete bridges and structures. Salary up to £630, according to age and experience. Permanency and good prospects of advancement for right men. Applications with age and details of previous experience to Chief Engineer, Paddington Station.

THE RAILWAY HANDBOOK provides the railway student with a collection of useful statistics and information relating to the railways of Great Britain and Ireland. In addition, in matters of international interest, such as speed and electrification progress, the book extends its scope to cover the whole world in order to present a complete picture of these increasingly-important developments. 120 pp. Dy. 8vo. Paper covers. Price 5*s*. By post 5*s*. 3*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

Queensland Railways

TENDERS, appropriately endorsed, are invited for 80,000 Pressed-Steel Sleepers with Fastenings, required by the Queensland Railways. Specification, drawings, general conditions and tender form, may be obtained from the Agent-General for Queensland, Queensland Government Offices, 409/410, Strand, London, W.C.2. Tenders are returnable either at the Office of the Commissioner for Railways, Brisbane, or to the Agent-General's Office in London not later than 2.30 p.m. on Monday, November 21, 1949.

Queensland Railways

TENDERS, appropriately endorsed, are invited for Steel Rails and Fastenings, required by the Queensland Railways. Specification, drawings and schedules, also general conditions and tender form, may be obtained from the Agent-General for Queensland, Queensland Government Offices, 409-410, Strand, London, W.C.2. Tenders are returnable either at the Office of the Commissioner for Railways, Brisbane, or to the Agent-General's Office in London not later than 2.30 p.m. on Monday, November 21, 1949.

VACANCIES exist in London Office of British Railways (Western Region) for the following:—(*a*) Structural Draughtsmen for preparation of designs and detail drawings of bridges, and (*b*) Steelwork Surveyors for examination and estimation of existing bridges. Previous experience desirable. Good prospects of permanency for right men. Salary up to £575 according to age and experience. Application stating age and details of technical education and experience to Chief Engineer, Paddington Station.

BRITISH WORK ON PERSIAN RAILWAYS. The achievements and difficulties of the R.E.s during the 15 months in which they laid the foundation for effective aid to Russia. Reprinted from *The Railway Gazette*, February 2 and 16, 1945. Price 1*s*. Post free 1*s*. 2*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

STATION DESIGN. A striking example of modern British practice at the important wayside station of Luton. Reprinted from *The Railway Gazette*, July 7, 1944. Price 1*s*. Post free 1*s*. 2*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

£8,168, the net amount of the proposed ordinary dividend was £8,910, on which it was proposed to pay a dividend of 10 per cent., and the balance carried forward £76,638 (£50,768). Their Australian business was in a satisfactory condition, despite the recent coal strike. The turnover of their subsidiaries increased generally, except that of Dow-Mac (Plant & Transport) Limited, which decreased owing to a falling off in the re-hired plant section; a decrease here was to be expected as result of nationalisation of road transport.

Thos. W. Ward Limited.—This Sheffield firm announces a net profit of the parent company for the year ended June 30 of £474,287. This figure is arrived at after providing for taxation and compares with £477,233 for the previous year. The distribution is to be maintained at 15 per cent. with a final payment of 10 per cent.

Transport of Racehorses.—On October 14, a traffic appeal tribunal at York dismissed, without costs, an appeal by the Railway Executive against the decision of the Yorkshire licensing authority to grant applications by a number of well-known Yorkshire racehorse trainers for "B" licences, enabling them to use their motor horse-boxes to transport horses other than their own. The hearing lasted three and a half days.

Institute of Welding.—Mr. O. V. Bulleid read his presidential address to the Institute of Welding on October 25. The paper dealt with Mr. Bulleid's experience of welding during his engineering career, commencing with a welded barge at Richborough, towards the end of the first world war. Mention was made of the welding of a carriage underframe in the York carriage shops, L.N.E.R., which led to the general introduction of welded underframes on that system and the succeeding development at Gorton, where welding was applied to wagon frames. Mr. Bulleid refers to the application of welding to locomotives, with mention of its value in repair work, and concluded with some comments on the standing of welding as a craft.

Public Transport Association Incorporated.—The 1950 conference of the Public Transport Association Incorporated will be held at Brighton between April 25 and 27.

Southern Railway Dramatic Society.—On Tuesday, November 29, at 6.45 p.m., the Southern Railway Dramatic Society is presenting "The Middle Watch," a romance of the sea by Ian Hay and Stephen King-Hall, at the Scala Theatre, Charlotte Street, London, W.1.

George Spencer Moulton & Co. Ltd.—Our attention has been drawn to an error on page 397 of our issue for September 30. In the list of contractors who supplied fittings for the new rolling stock for the Liverpool Street-Shenfield electrification, George Spencer Moulton & Co. Ltd. was shown as the contractor for metallic fittings, whereas this firm supplied India rubber springs for the vehicles.

Southern Region, Lecture & Debating Society.—The first indoor meeting of British Railways, Southern Region, Lecture & Debating Society winter session was held at the Chapter House, London Bridge, on Monday, October 10, with Mr. R. M. T. Richards, Deputy Chief Regional Officer, Southern Region, in the Chair. Two papers, "The Economics of Travel" and "The Travel Association," were delivered by Mr. L. Lickorish, Research Officer, Travel Association, and Mr. A. J. Kershaw, Secretary, Travel Association. These were followed by a short Travel Association film on the West Country, and a discussion on tourist travel to Great Britain ensued. A vote of thanks was proposed by Mr. W. H. Mepsted, Commercial Superintendent, Southern Region, and seconded by Mr. R. A. Savill, Honorary Assistant Secretary of the Society.

Retail Prices Index.—At September 13 last the official index figure, which measures changes in the average level of retail prices compared with the level at the base date, June 17, 1947 (taken as 100), was 112, compared with 111 at August 16.

British Standard for Connectors for Timber.—Recently a number of new connecting devices have been introduced in connection with the structural use of timber. A British Standard has now been published, dealing with connectors for timber, which specifies the quality and dimensions of several types of these connectors. Copies of the standard (B.S.1579: 1949) may be obtained from the British Standards Institution, Sales & Distribution Department, 24, Victoria Street, London, S.W.1, price 3*s*. each, post free.

International Building Trades Exhibition.—At the International Building Trades Exhibition, which is to be held from November 17-December 1 at Olympia, London, the firm of Warerite Limited will demonstrate the advantages of Warerite panels and veneered board for the interior treatment of hotels, restaurants, bars, public buildings, ships, and railway coaches. Attractive appearance, economy of maintenance, easy fix-

ing and fabrication, hygiene, and exceptional wearing properties are principal advantages claimed for these materials. The self-service counter forming the central feature of the stand will show a typical application for a material with hard-wearing properties and complete resistance to alcohol, vinegar, and contact with hot vessels.

Forthcoming Meetings

October 28 (*Fri.*).—Institution of Mechanical Engineers, Storey's Gate, London, S.W.1, at 5.30 p.m. Discussion on the Lancashire Boiler. Papers: "The Thermal Efficiency of a Hand-Fired Natural-Draught Lancashire Boiler," by Messrs. T. F. Hurley and W. J. Sparkes; "The Influence of Certain Factors on the Performance of a Lancashire Boiler," by Messrs. E. G. Ritchie and N. Y. Kirov.

October 28 (*Fri.*).—Society of Engineers, 17, Victoria Street, London, S.W.1, at 6.30 p.m. Address by President, Mr. E. S. Waddington.

October 28 (*Fri.*).—Institution of Railway Signal Engineers, in London Transport Executive Signal School, Earls Court Station, at 6.15 p.m. "Signalling Relays," by Mr. J. F. Tyler.

October 28 (*Fri.*).—Engineers' Guild, at Milton Hall, Deansgate, Manchester, at 7 p.m. Discussion: "The Engineers' Guild as an Association of Professional Engineers" and inauguration of North Western Branch in Manchester.

October 29 (*Sat.*).—Permanent Way Institution, London Section. Inspection of Liverpool Street-Shenfield electrification.

October 29 (*Sat.*).—Railway Students' Association, London School of Economics & Political Science. Visit to Whitemoor marshalling yard, depart Liverpool Street, 8.20 a.m.

November 1 (*Tue.*).—Institute of Transport, anniversary luncheon, at the Connaught Rooms, Great Queen Street, London, W.C.2, at 12.45 for 1.15 p.m. Speakers, Lord Tedder and Mr. Alfred Barnes.

November 1 (*Tue.*).—Institution of Civil Engineers, Great George Street, London, S.W.1, at 5.30 p.m. Presidential address, by Mr. V. A. M. Robertson.

November 2 (*Wed.*).—Institute of Traffic Administration, London Centre, at Caxton Hall, Westminster, at 7.15 p.m. "Industry's part in the reduction of losses in rail transit," by speaker from the Railway Executive.

November 3 (*Thu.*).—Diesel Engine Users Association, joint meeting with Institute of Marine Engineers, at 85, Minories, London, E.C.3, at 5 for 5.30 p.m. Discussion: "Crankcase Explosions."

November 3 (*Thu.*).—British Railways, Western Region, London Lecture & Debating Society, in the Clerks' Dining Club, Bishop's Bridge Road, Paddington, at 5.45 p.m. Brains Trust: Questions on railway operating and administration. Question Master, Mr. H. G. Bowles, Acting Assistant Chief Regional Officer, Western Region.

November 4 (*Fri.*).—Scottish Society of Students of the Locomotive, at 302, Buchanan Street, Glasgow, C.2, at 7.30 p.m. "The Development of the Modern French Steam Locomotive," by Mr. R. C. Menzies.

Railway Stock Market

The Prime Minister's statement has caused an all-round rally as a result of the widespread reaction last week when it was assumed that there would be drastic measures to deal with inflation and other problems arising from devaluation. It is generally agreed that the proposed measures are not drastic enough to preclude another crisis early next year. In the circumstances it seems paradoxical that industrial shares as well as British Funds have rallied this week. British Funds improved largely because of relief that the measures do not involve further tax increases. Moreover, markets generally have reflected the fact that fears of a capital gains tax or of an increase in the stamp duty on Stock Exchange transactions have not been confirmed. Such measures would have struck a heavy blow at the Stock Exchange and many smaller firms of brokers would have found it difficult to remain in business. The market rally in evidence at the time of going to press may prove to be short-lived. Shares of many of the big exporting companies are probably undervalued, because of the scope for higher profits, nevertheless, dividend limitation will prevent higher distributions for shareholders. Home trade companies face lower turnover owing to the reduced spending power of the public and the rising costs of materials on a wide front; and the market fears that many may have to reduce dividends next year. As was to be expected, the Transport and other nationalisation stocks have participated in the improved trend, the good yields attracting better demand, although sentiment in the gilt-edged market has not shaken off talk that an increase in the Bank rate may prove inevitable next year.

There has been only moderate business in foreign rails, and small irregular movements prevailed, no particular trend developing. Brazil rails quietened down, awaiting further news from Brazil, although Leopoldina 6½ per cent. debentures have been rather more active around 130. Leopoldina 4 per cent. debentures were 87, the preference stock 26, and the ordinary fluctuated around 8¼. Leopoldina Terminal debentures and ordinary units were 104 and 2s. 9d. respectively. The market expects that by the begininng of next month the Leopoldina directors will have issued their proposals for dividing the pay-out money between the various classes of stockholders. Main interest will attach to the proposals in respect of the ordinary and preference stocks. It is believed in some quarters that if preference stockholders are to receive full payment for their big dividend arrears the total payment for ordinary stockholders cannot be much more than the current market price. Elsewhere, San Paulo 10s. units have receded further to 13s. 3d. Great Western of Brazil £10 shares have been steady at 133s. 9d. Brazil Rail gold bonds were better at 44. United of Havana stocks became less active, awaiting the further statement from the directors; but after easing the 1906 debentures rallied to 28½. Central Uruguay ordinary remained at 11½.

Manila "A" debentures were 86 and the preference shares 7s. 3d. Mexican Railway 6 per cent. debentures were 42½ and Northern Railway of Mexico 4½ per cent. bonds 17. Antofagasta ordinary and preference have been steady at 7¼ and 40½ respectively. Canadian Pacifics strengthened to 25¼, but the preference stock eased to 62½, and the 4 per cent. debentures to 95½. Nitrate Rails were 73s. 9d. and Taltal shares changed hands up to 15s. 6d. La Guaira & Caracas 5 per cent. debentures marked 60.

The rise in petrol and oil prices had been expected and had little effect on shares of road transport and bus companies. West Riding were 70s., Southdown better at 123s. 9d., Lancashire Transport 79s. 6d., and B.E.T. deferred stock £1:455.

Iron and steel shares were helped by the better trend earlier in the week, and Guest Keen improved to 38s. 9d., United Steel to 25s. 3d., Colvilles to 31s. 10½d., and Thomas & Baldwins to 13s. 3d., while Vickers were 25s. 4½d. Movements in shares of locomotive builders and engineers did not exceed more than a few pence. North British Locomotive were 19s. 3d., and Beyer-Peacock 19s. 4½d., but Gloucester Wagon have come back to 51s. since publication of the results, which, however, created an excelllent impression, reinforced by the strong financial position. Vulcan Foundry were around 19s. 3d., Wagon Repairs 17s., and T. W. Ward firm at 55s. 6d.

Traffic Table of Overseas and Foreign Railways

	Railways	Miles open	Week ended	Traffics for week: Total this year	Inc. or dec. compared with 1947/48	No. of weeks	Aggregate traffics to date: Total 1948/49	Increase or decrease
				£	£		£	£
South & Central America	Antofagasta...	811	16.10.49	74,820	+ 20,810	41	2,717,860	+ 458,210
	Costa Rica ...	281	Aug., 1949	36,405	+ 501	9	71,692	— 5,844
	Dorada ...	70	Sept., 1949	32,185	+ 1,529	39	265,030	+ 24,545
	G.W. of Brazil ...	1,083	21.5.49	19,200	— 10,600	20	755,800	+ 1,200
	Inter. Ctl. Amer. ...	794	Aug., 1949	$1,023,467	+ $26,568	35	$8,601,268	— $568,351
	La Guaira	22½	Sept., 1949	$108,255	+ $6,733	39	$967,478	+ $28,622
	Leopoldina	1,902	28.5.49	43,288	+ 3,864	21	965,094	— 155,382
	Nitrate	382	15.10.49	18,687	+ 5,016	41	359,026	+ 113,432
	Paraguay Cent. ...	274	14.10.49	₲143,431	+ ₲48,074	15	₲2,144,497	+ ₲608,773
	Peru Corp. ...	1,059	Aug., 1949	246,670	+ 74,521	9	473,214	+ 122,033
	Salvador	100	May, 1949	c94,000	— c9,000	48	c1,884,000	— c6,600
	Taltal	154	Sept., 1949	9,205	+ 950	13	29,200	+ 5,440
	United of Havana ...	1,301	11.6.49	$231,311	+ $14,746	49	$13,733,928	— $4,659,951
Canada	Canadian National...	23,473	Aug., 1949	10,655,750	+ 545,750	35	80,200,500	+ 2,524,250
	Canadian Pacific ...	17,037	Aug., 1949	7,719,000	— 16,500	35	58,840,750	+ 3,443,750
Various	Barsi Light* ...	202	Sept., 1949	23,640	+ 3,285	25	179,107	+ 24,015
	Beira	204	Feb., 1949	104,917	— 6,180	22	589,461	+ 9,141
	Egyptian Delta ...	607	20.8.49	18,145	— 784	20	255,747	+ 5,668
	Gold Coast ...	536	Aug., 1949	258,530	+ 101,174	22	1,192,125	+ 173,678
	Mid. of W.Australia	277	Aug., 1949	28,838	+ 168	9	49,700	— 2,957
	Nigeria	1,900	July, 1949	489,380	— 15,057	16	1,771,747	— 24,882
	South Africa ...	13,347	24.9.49	1,518,654	+ 192,822	38	37,435,178	+ 3,889,878
	Victoria	4,744	May, 1949	1,513,772	+ 65,626	48	—	—

* Receipts are calculated @ 1s. 6d. to the rupee